DOCUMENT RESUME

ED 392 935 CE 071 069

AUTHOR Lopez-Valadez, Jeanne; And Others
TITLE Making Training Connections: Integrating Workplace Education in Small Businesses.
INSTITUTION Northern Illinois Univ., De Kalb.
SPONS AGENCY Office of Vocational and Adult Education (ED), Washington, DC.
PUB DATE May 95
CONTRACT VN93014001
NOTE 118p.
PUB TYPE Guides - Non-Classroom Use (055)

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS Adult Basic Education; Educational Planning; Guides; Integrated Curriculum; Job Training; *Literacy Education; Marketing; *Program Development; *Small Businesses; Staff Development; Teamwork; *Workplace Literacy

ABSTRACT

This handbook is designed for individuals responsible for planning employee education, technical training, and other human resource development services in a workplace setting, especially in small business. It provides information on integrating basic education activities with technical training and organizational change activities to enable all employees to participate actively in the improvement of productivity and quality of work life. Each of the seven chapters is organized around a question--an issue, problem, or challenge that workplace educators must deal with in order to link basic education with technical training and organizational change. Chapters cover the following: (1) from basic skills to integrated learning; (2) the changing role of the workplace educator; (3) marketing comprehensive services; (4) collaboration through a team approach; (5) clarifying organizational and individual needs; (6) creating multiple learning opportunities; and (7) evaluation for continuous improvement. Each chapter contains an introduction, self-study questions, informative material, summary, and suggested self-review. Appendixes include the following: a list of 53 suggested readings, annotated lists of 11 workplace education handbooks and 38 workplace literacy curricula, list of 6 bibliographies of instructional material, list of clearinghouses and national centers, list of centers in the National Network for Curriculum Coordination in Vocational and Technical Education, list of National Association of Industry Specific Training Directors, and agencies involved in National Skill Standards Projects. (YLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 392 935

MAKING TRAINING CONNECTIONS

Integrating Workplace Education in Small Businesses

Contract # VN93014001

May 1995

Jeanne Lopez-Valadez
Office of Applied Innovations
Northern Illinois University

Paul Jurmo
Learning Partnerships

Mavis Dowd
Office of Applied Innovations
Northern Illinois University

CE071069

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

This document was prepared pursuant to Contract No. VN93014001 from the U.S. Department of Education, Office of Vocational and Adult Education. However, the contents of this publication do not necessarily reflect the views or policies of the Department of Education, nor does the mention of trade names, commercial products or organizations imply endorsement by the U.S. Government or Northern Illinois University.

TABLE OF CONTENTS

	Introduction	1
I	From Basic Skills to Integrated Learning	5
II	The Changing Role of Workplace Educator	18
III	Marketing Comprehensive Services	29
IV	Collaboration Through A Team Approach	34
V	Clarifying Organizational and Individual Needs	43
VI	Creating Multiple Learning Opportunities	55
VII	Evaluation for Continuous Improvement	66

APPENDICES

Resource Materials

Appendix A-	Suggested Readings	76
Appendix B-	Workplace Education Handbooks	82
Appendix C-	Workplace Education Curricula	86
Appendix D-	Bibliographies of Instructional Materials	93

Resource Agencies

Appendix E-	Clearinghouses and National Centers	95
Appendix F-	National Curriculum Coordination Centers	98
Appendix G-	State Literacy Resource Centers	100
Appendix H-	NAISTD State Contacts	117
Appendix I-	Skill Standards Projects	125

INTRODUCTION

We've written this handbook with some assumptions in mind. We are making an educated guess about who you are and what you might need in terms of guidance related to workplace education.

By being clear about these questions, we can as authors better serve your needs. This framework for clarifying our audience and their needs borrows from the total quality management planning process which bases operations on a clear understanding of who one's customers are and what they want and need.

Although we can't get to know you and your needs directly, our experience in the workplace education field has led us to make the following assumptions about who you are, what you might be looking for, and how this handbook might be organized to help you meet your needs.

WHO YOU ARE

We assume that:

You are responsible for planning employee education, technical training, and/or other human resource development services in a workplace setting. You are most likely a workplace literacy educator. You might also be a technical trainer, a human resource development officer, or a union representative responsible for education issues. You may even be an employee of the company in which these services will be provided.

You have a special interest in working with small businesses. You recognize that small businesses have significant employee education and training needs. You also realize that not enough effort has gone into developing tools for meeting those needs.

WHAT YOU ARE LOOKING FOR

We assume that you have picked up this handbook because you are looking for some ideas – some guidance – related to workplace education, especially in small business.

More specifically:

- You are looking for new research - based ideas to ensure the best possible strategy for dealing with broad basic skills needs.
- You are looking in particular for ways to link basic education to technical training and other organizational change activities.

- You want to strengthen your abilities to analyze issues you'll face and to know practical steps to take to deal with these issues when you face them.

- You want to know where to find additional relevant resources.

HOW THIS HANDBOOK MIGHT HELP

Given the above assumptions about who you are and what you need, we have organized this handbook to meet the following objectives:

This handbook will help you to:

- Learn from the new thinking emerging from the workplace education field in recent years.

- Use that experience – and your own – to develop strategies which respond effectively to the basic skills-related needs of the workplace you serve.

- Develop links to other resources which you can use to continually improve your work.

HOW THE GUIDE IS ORGANIZED

To meet the above objectives, this Guide is structured to help you develop your own answer to the following major question:

How might an organization integrate basic education activities with other technical training and organizational change activities, to enable all employees to participate actively in the improvement of productivity and the quality of work life?

The Guide is broken down into seven chapters. Each chapter is organized around a question. These are issues, problems, or challenges which workplace educators need to deal with if they are to successfully link basic education activities with technical training and other organizational change initiatives.

These are the seven chapters and the sub-questions dealt with in them:

1. From "basic skills" to "integrated learning": *How has workplace education evolved in response to new demands and experience?*

2. The changing role of workplace educator: *How can you prepare yourself and other stakeholders to create integrated learning?*

3. Marketing to small business: *How can you connect with companies in need of education and training services?*

4. Collaboration: *How can a team approach help you create and sustain an integrated initiative?*

5. Needs assessment: *How can you clarify both organizational and individual needs?*

6. Curriculum: *How can you create multiple learning opportunities?*

7. Evaluation: *How can you assess for continuous improvement?*

The appendices of the Guide provide you with information regarding: professional readings, sample instructional materials, resource agencies and national projects.

We ask that, as you proceed through these questions, you see yourself not merely as a consumer of the information we present. Instead, please think of yourself as an active "thinker-researcher." For each question, we will present you with ideas gleaned from the work of innovative workplace educators. However, we hope that you will then go to the next step of actively thinking through how this information applies to you and how you would deal with these questions in the companies you work with. Each chapter begins and ends with a self-study activity which challenges you to analyze how the material presented relates to your situation.

Consider this handbook as more of a "self-study" than a "lecture." Go through this process on your own and/or with colleagues, either before or as you embark on a workplace education effort.

WHY FOCUS ON SMALL BUSINESSES

Small businesses represent 99 percent of all firms in the United States. These are defined by the U.S. Small Business Administration (SBA) as companies with 500 or less employees. However, because of their unique needs, educators and researchers alike make a further distinction between very small companies with 50 or fewer employees and those medium size firms with more than 100 (Chisman, 1992, Black Berger & Barron, 1993). For purposes of this project, the study focused on small and mid size companies with less than 250 employees.

Consider:

- Small and medium size companies play a key role in the American economy. Not only do they employ two-thirds of the nation's workers, they also generate 47% of the gross national product. In addition, these firms engender two out of three new jobs (Chisman, 1992). As such their success is closely tied to the economic well being of the nation and that of many Americans.

- Small businesses hire proportionately more entry-level workers than larger companies. These workers tend to have less on-the-job experience and training than more experienced workers. They thus are likely to need to upgrade their skills. (Black, Berger, and Barron, 1993).

- Small businesses have fewer training resources to work with. They are thus less able to set up special training programs to respond to the greater training needs of their workforce. (Hollenbeck and Kline, 1992; Bassi, 1992.)

- Small businesses which offer workplace education programs tend to also engage in work restructuring activities to a much higher extent than firms without such programs. These firms also tend to have better profitability (Hollenbeck & Kline, 1992; Bassi, 1992).

- Employees of very small firms benefit from training as well. Wages per hour of training increase 2.5 times faster than in medium size firms with more than 100 employees (Black, Berger, & Barron, 1993). Improved skills also help these workers leverage better jobs and open doors to more education or training. Moreover, companies with workplace education programs tend to offer more employee benefits and pay higher wages than other small companies without programs.

Workplace educators should be aware that smaller companies have proportionately more trouble keeping up with the changing skill requirements of the new workplace. Those that do invest in worker education and training, however, tend to benefit not only the organization itself but participating workers.

These are arguments which workplace educators can make to funders, employers and unions they interact with in the community, and to the "higher-ups" within educational institutions. Remind these stakeholders of the need and potential for high quality worker education and training.

As you put together strategies for working with small businesses, you also need to be sensitive to the limitations which smaller companies face. Create strategies which are relevant and sustainable within the contexts you will be working in. This Guide is an attempt to help you do so.

CHAPTER 1: FROM BASIC SKILLS TO INTEGRATED LEARNING

Workplace educators are operating in a changing world. Experience is showing us that, to be relevant, we need to understand the many stakeholders we interact with, what they are looking for, the factors which are shaping their thinking, and the range of ways we can respond to stakeholder needs. One such response is "integration" – a more systematic way of merging basic education, technical training, and other organizational change activities.

SELF STUDY

To better understand the professional context in which you will be working, think through the following questions and jot down your responses. This will help you clarify who it is you will be working with, what they expect, and the range of educational approaches available to you.

1. In the workplace(s) you currently (or hope to) work with, who are the stakeholder groups?

2. For each of those stakeholder groups, what is motivating them to pay attention to employee education and training? What might they hope to achieve by setting up a workplace education initiative?

3. Which of the above expectations/goals do you think are feasible and worth pursuing? Which are not realistic or on target?

4. What types of workplace education have you provided in the past? What were the goals and content of those education programs?

5. Will you continue using the same approach in the future or will you change it in some way? What goals, content, methodologies will you likely focus on in the future?

RETHINKING WHAT STAKEHOLDERS WANT IN THE WORKPLACE

Employee basic skills providers are now being asked to help workplaces make the shift toward a "high performance" way of organizing work. Central to that model is the TQM (total quality management) notion that successful organizations need to be clear about who their customers are and what their customers need. This provides the organization with a basis for designing operations to ensure that customer needs are met.

If we as workplace educators adopt that "high performance/TQM" approach ourselves, we need to look at who <u>our</u> customers are and what they are asking for. If we do so, we will likely find that we need to revise many of the assumptions which underlay earlier workplace education efforts.

This guide uses the term "stakeholder" to refer to those individuals or institutions

which are investing something (time, money, reputation) in an organizational change activity and expect something in return. Stakeholders are, in effect, the "customers" we try to serve.

While most agree that management is a key stakeholder, "management" is not a monolith. Within a typical company, there are a number of subgroups at different levels, each with particular reasons for being concerned about employee basic skills:

- **Production managers** who want skilled workers to implement changes and improve company performance.
- **Human resource development managers** who tend to focus on ensuring good employee morale, inter-employee relations, and a match between employees' abilities and the demands of current and future jobs.
- **Trainers** (managers, supervisors, co-workers, outside training specialists, and/or suppliers) who want motivated, well prepared learners who can acquire and apply new skills quickly.
- **Supervisors**, concerned with job performance, want employees who can handle both the technical and interpersonal demands of their jobs.
- **Workers** who want to upgrade their skills so they can meet job-related and/or personal development goals.
- **Union representatives** who want to improve employees' "quality of work life" (i.e., job security, promotability, health, and job satisfaction).
- **Funders** such as state or federal agencies (or perhaps trade associations) looking for ways of sustaining the economic health of particular communities and/or industries.

An evolving and complex mix of concerns

The above summary shows that stakeholders approach the question of employee education with a number of questions in mind. They want to know whether all employees have the knowledge and skills they need to:

Enable the organization to meet strategic goals of...
. . . re-organizing work processes;
. . . using technological innovations;
. . . meeting quality standards;
. . . complying with safety, environmental, and other regulations;
. . . increasing productivity.

Enable individuals to...
. . . qualify for a promotion;
. . . ensure job security and satisfaction;
. . . participate in technical training and further education;
. . . have a high quality of life outside the job (as family members, as citizens, and as consumers).

Some stakeholders are primarily concerned about "enabling the

organization." Others are more concerned about "enabling the individual." When confronted with the "employee basic skills question," most stakeholders have some mix of concerns, wanting to both help the organization and help the individual.

In an emerging, "collaborative" perspective on workplace change, organizational development and personal development are seen not as competing interests but as overlapping, mutually supportive goals. In this view, a healthy organization enables individual employees and their communities to sustain a quality life; in turn, healthy employees want to invest themselves in sustaining the organization.

THE EVOLVING WORKPLACE

It is important for workplace educators to keep the above range of potential stakeholders and interests in mind when developing strategies for responding to those interests. It is also critical to understand how the U.S. workplace has evolved in recent years and how that evolution is shaping how stakeholders have been defining and responding to the "workplace skills problem." This will help us develop an appropriate analysis and practice which builds on the considerable work done until now.

Since the early 1980s, American workplaces have been scrambling to respond to a myriad of new pressures and opportunities. They must deal with intensified competition from foreign and domestic companies, higher quality standards, more stringent safety and environmental regulations, higher costs for materials, equipment, and utilities, and a changing labor pool.

Workplaces also now are being presented with such new opportunities as: more efficient technologies for production, record-keeping, and communication; new ways of organizing work processes; and new government incentives to create jobs.

Companies are increasingly looking to training as a vehicle for enabling their workforce to respond to these challenges and opportunities. Organizations are trying to figure out how to provide the technical training which employees need to participate actively in workplace change. In planning this technical training, workplaces are being forced to – often reluctantly – look at the question of "employee basic skills." Stakeholders are trying to define what this term means in their particular contexts and how to ensure that all employees have the "basics" they need to participate fully not only in technical training but in all other workplace changes.

In the process, companies are now being challenged to figure out how to "fit" technical training and basic education activities into the other changes which the organization is introducing. The demands and opportunities of the new workplace have thus driven stakeholders to rethink what "employee basic skills" means.

BEST COPY AVAILABLE

HOW HAVE STAKEHOLDERS BEEN DEFINING THE PROBLEM?

As mentioned above, in the 1980s many employers were bumping into the question of what role employee basic skills played in their efforts to deal with the new demands and opportunities of the emerging workplace. Like the blind men feeling the elephant, they knew they had their hands on something but weren't sure just what it was. A media blitz occurred which helped stakeholders give this "thing" a name.

Employers, unions, adult educators, public policy-makers and the general public began to be bombarded with messages -- in the general media, in trade publications, and in professional conferences -- about what was termed the "workplace basic skills problem." These messages to a large degree grew out of a larger media blitz about the "U.S. adult illiteracy crisis." As a result, the workplace skills issue tended to be seen as a "worker illiteracy" problem which, logically, would respond to a "workplace literacy program" solution.

For some this meant setting up a remedial education program of some kind which focused on reading, writing, oral English, and/or math. The content of these programs varied from general versions of these skills (e.g., "basic math" which learners would presumably transfer back to the job) to job-specific basic skills (e.g., ESL for hotel housekeeping staff).

By the early 1990s, the concept of "basic skills" was broadened beyond the traditional "3Rs" to include teamwork, finding information, critical thinking, "understanding systems," and other skills traditionally thought of as "higher order skills." This broadening of the definition of the skills all employees needed for the new workplace was based on feedback from employers and others who in effect said that "the 3Rs is no longer enough."

The new definition of basic skills was summarized in the American Society for Training and Development's Workplace Basics and subsequently in the SCANS Report issued by the Department of Labor in 1991. Following is a synopsis:

SUMMARY OF SCANS

Competencies

Resources: Identifies, organizes, plans, allocates resources

Interpersonal: Works with others

Information: Acquires and uses information

Systems: Understands complex inter-relationships

Technology: Works with a variety of technologies

Foundation skills

Basic skills: Reading, writing, arithmetic, listening, speaking

Thinking skills: Creative thinking, decision-making, problem solving, graphic literacy

Personal qualities: Responsibility, sociability, self-management, integrity

Source: Secretary's Commission on Achieving Necessary Skills (1991). What Work Requires of Schools. Washington, DC: US Department of Labor.

Stakeholders began to understand that the emerging workplace was placing new demands on all employees and that many employees lacked the full range of skills and knowledge they needed to do their jobs well. Many felt that the solution to this problem was to "fix the schools" by, for example, restructuring curricula to teach the SCANS skills and using TQM concepts to "re-engineer" how schools were managed. Such school reforms would ensure that new workers were properly prepared for the jobs they would face. Some stakeholders also felt that the existing workforce needed to be "fixed" through special basic education forces to bring their skills up to speed.

By the early 1990s, some stakeholders were questioning whether a focus on upgrading worker basic skills was -- by itself - enough. Guided by such concepts as "the learning organization" and the "high performance organization," some were now calling for a more comprehensive strategy for transforming workplaces. In such a strategy, employee skills would be seen as just one piece of the organizational development puzzle. To make the shift to high performance, a workplace would need not just a well skilled workforce but appropriate equipment, efficient decision-making and communications channels, appropriate incentives, mechanisms for ongoing monitoring and improving of operations, and other factors. At a national conference on High Performance Work and Learning Systems (1991), Ray Marshall, former Secretary of Labor, outlined the elements of a high performance organization described in the adjacent chart.

COMPONENTS OF THE "HIGH PERFORMANCE WORKPLACE"

1. Effective use of all company resources, especially the insights and experiences of all front-line workers, in order to achieve continuous improvements in productivity.

2. Acute concern for quality of products and services in order to satisfy demands of a consumer-driven marketplace.

3. A participatory and non-authoritarian management style in which workers -- both at the point of production and at the point of customer contact -- are empowered to make significant decisions.

4. Internal and external flexibility in order to: (a) rapidly adjust internal production process to produce a variety of goods and services; and (b) accurately comprehend the external environment and adjust to changing economic and social trends.

5. A positive incentive structure that includes: employment security, rewards for effectively working in groups, decent pay and working conditions, and policies that promote an appreciation for how the company functions as an integrated whole.

6. Leading edge technology deployed in a manner that extends human capabilities and builds upon the skills, knowledge, and insights of personnel at all levels of the company.

7. A well-trained and well-educated workforce capable of improving a company's work organization and production process; adapting existing machine technology and selecting new equipment; developing new and improved products or services; and engaging in continuous learning, both on-the-job and in the classroom.

8. An independent source of power for workers -- a labor union and collective bargaining agreement -- that protects employee interests in the workplace; helps to equalize power relations with management; and provides mechanisms to resolve disagreements.

BEST COPY AVAILABLE

There has thus been an evolution in how stakeholders have defined the workplace skills issue. They began by having a sense that there was some kind of problem but not knowing what to call it. They then saw it as a problem of workers lacking the traditional "3Rs" and called it a "workplace literacy" problem. They then recognized that it was more than the "3Rs" and said too many workers lacked the kinds of "basic" and "higher order" skills summarized in SCANS.

Most recently, some have moved beyond focusing solely on individual worker deficits and instead see the problem in organizational ("systems") terms. In this latest view, the problem is not just one of individual workers lacking SCANS-type competencies but of entire organizations not putting in place the full range of education, training, and other organizational change initiatives which might be needed to shift to a high performance mode. This evolution in how stakeholders have interpreted the workplace skills problem is reflected in the "solutions" which the field has come up with since the early 1980s. These responses to the problem are described below.

HOW HAVE STAKEHOLDERS RESPONDED?

From the above synopsis of how stakeholders have interpreted the "employee skills problem" a reader might infer that this issue has been a high priority for employers, unions, workers, public policy makers, adult educators, and others. To a large degree, however, this has not been the case, as companies have actually tended to ignore or give low priority to the question of what to do if employees appear to lack the basic skills the new workplace requires. In some cases this is due to a simple lack of understanding of how others have defined the issue and the role basic skills might play within the organization. This lack of understanding might in turn be due to a lack of access to information and guidance. Often stakeholders within a small company are simply too busy to take the time to learn about the issue or are unfamiliar with the resources on the subject.

There are some workplaces, however, which have attempted to deal with what they perceive as an employee basic skills problem. Many such efforts -- especially those prior to the mid-1980s -- took the form of transplanting fairly standard adult basic education programs into a workplace setting. For example, a teacher from the local adult education night school might be invited to run a basic education class for a company's employees after work hours in the company cafeteria.

Such efforts operate on the premise that the problem to be solved was one of worker "illiteracy" or low educational attainment. Therefore, the curriculum used is normally not customized to the workplace -- or to any other context. Instead, what is used is often "off-the-shelf" basic skills materials from adult education. These programs feel successful if they raise the learner's grade level on a test or if a GED is obtained. In such a case, it is hoped that the worker will benefit personally and that

s/he might also use some of what s/he learns in the classroom back on the job.

Since the late 1980s, greater emphasis has been placed on customizing workplace basic skills curricula to enable workers to perform particular job tasks. Instructors analyze job tasks to identify the basic skills applied on the job and then teach using materials and language borrowed from the tasks workers are performing. This approach recognizes that the kind of functional basic skills needed on the job differ from those traditionally taught in adult basic education. It is also based on cognitive research which indicates that contextual learning increases learner interest and retention.

However, some practitioners, researchers, and employers have in recent years argued that these job-specific curricula have too often missed the target of what organizations and individuals actually need. They argue that:

- To work in teams, take initiative, and carry out the other responsibilities required in the new workplace, workers actually need the broader kinds of competencies described in SCANS rather than just the traditional "3Rs".

- Since workers are constantly being trained, they need the learning and academic skills required to participate in technical training. These basic skills are usually different from those required to perform a job (i.e, reading to do versus reading to learn).

- Workers need to be able to perform a number of jobs and thus need to develop multiple competencies to enable them to move across traditional job categories.

- Many workers want skills which enable them to participate in other educational, job, and life opportunities.

- To encourage workers to get in the "time on task" (practice) required to really master their skills, they should be guided to apply what they are learning not only to a small number of tasks on the job but to many other situations they face in and outside the workplace.

- Not only do workplaces need to help learners upgrade their skills, but they must figure out how to restructure the organization to encourage and enable learners to actually use those skills.

In response to the above concerns about making a curriculum too specific to a few skills required by a small number of job tasks, some practitioners are now focusing on a broader and more complex web of competencies. These competencies are seen as "transferrable" by learners to many different contexts. At the same time workplace educators are looking for ways to more fully integrate basic skills activities with technical training and other workplace change activities. The result is what might be called an "integrated" approach which links workplace education, training, and change.

BEST COPY AVAILABLE

WHAT IS "INTEGRATION" AND WHY IS IT IMPORTANT?

Workplace educators know the too familiar drill. You stand on your head to set up a solid workplace education program. Learners come to classes, and most appear to be learning. But when you evaluate the program, it appears that the participants aren't using what they learned in the classroom back on the job. You wonder: what are we doing wrong?

This is a typical scenario for workplace education programs. Rather than berate themselves too heavily, workplace educators caught in such a situation should look beyond their immediate education program to the larger organizational system in which the program operates. Following is an example of what happens when a workplace education program is not integrated into the larger organization. Managers assumed educators would take care of everything. And, besides, the company has no vested interest, so it wasn't all that necessary to make sure that the program was working.

This too familiar scenario occurs when stakeholders see education in the more traditional perspective as "something done in school to prepare students for the future." When applied to a workplace education program, this perspective positions the program as something apart from day to day company operations.

"What's wrong with this picture?"

The union leadership of a printing company discovered that their fellow union members at another plant have started a workplace training program. Eager to insure that their company provide the same benefits to its members, the union convinced management to pay for a workplace literacy program. They agreed that this new program would not interfere with senority rules for promotion or affect performance appraisals.

The company contracted with a local technical college to provide an onsite education program geared to meeting the individual needs of workers. Because of privacy concerns, the company requested that no formal assessment be done. Teachers were also asked not to contact participants at the worksite so that others wouldn't know who was receiving this special help. Participation was voluntary on the employee's time.

A two station computer lab was set up in an unused storage area where the workers could enter without being seen. The teacher used generic adult education courseware and word processing software to tailor instruction for each learner.

After 6 months, an outside evaluation found that:

1. since there were no incentives for participation, only a few workers participated; only one had completed a GED.

2. the teacher was frustrated because she felt isolated from the company, the workers and other agency staff members; she felt powerless to make changes.

3. the company wasn't prepared to reward or reinforce learners' use of those skills back on their jobs; training was not seen as a way to meet strategic goals.

The result is what we saw in the above example: frustration, lack of communication, and lack of transfer of learning back to the workplace. In such a case, it almost doesn't matter what the educators do. No matter how creative and committed they are, their work is not likely to have a lasting impact on the organization because stakeholders didn't pay enough attention to integrating education with other company training, operations and policies.

Recognizing this problem, workplace educators are creating new mechanisms for more systematically linking education with technical training and other organizational change activities.

Experience has shown that, to have a lasting impact on the organization and to get the support it needs from the multiple stakeholders represented there, a workplace education effort can't be a "stand-alone" entity. Rather, the kind of learning which goes on in the classroom must be "integrated" into the policies and operations of the departments in which program participants work – and vice versa.

> In an "***integrated***" approach, stakeholders in the organization carefully figure how all of its policies and procedures can be altered to support the innovations the company wants to introduce. Education is one part of that coordinated, multi-faceted organizational change effort (E. Cohen-Rosenthal, 1994).

Workplace educators, technical trainers, and others responsible for organizational development are recognizing the value of such integrated efforts. They make the following arguments:

Integration of workplace education, technical training, and other organizational change activities...

- Keeps each activity focused on needs which are tied to the larger organizational change strategy;
- Reduces unnecessary redundancy or contradiction among various activities;
- Enables the various activities to reinforce each other, thus increasing the impact of each individual activity;
- Contributes to the creation of a learning ethic which stresses learning and continuous improvement in all aspects of development of individual employees.

Merging basic education and technical training

The first step to integration is to merge basic education with other training initiatives. In the case of small businesses, this means collaborating with supervisors and other internal or external trainers.

<u>Progressively Linked</u>

In this more traditional approach, a basic skills program is seen as a stepping-stone to technical or other company training. In

this approach, the goal is to equip employees for transitioning into and succeeding in future technical or work restructuring training. Learners must first master a prescribed grade level or set of basic skill competencies.

CASE STUDY

Metal Seal & Products is a medium size turning and metal finishing company in Ohio. Although the company conducts some of its own training, it is currently working with the Unified Technologies Center of Cuyahoga Community College for basic skills and technical training.

The recent impetus for training was a result of the company's growth and its move to cells for manufacturing. It was also implementing continuous improvement efforts fostered by G.M.'s Target for Excellence. In order to utilize the current workforce to the best of their ability, all employees needed training to work more independently. Training was also seen as a way of helping employees meet their personal learning needs.

Metal Seal & Products and its partner designed a sequential series of two to five week courses which combine basic skills and technical training. Employees begin with a short course on "Learning to Learn" which is used to assess individual learning styles and math abilities. Those with low math scores are selected to take the "Math on the Job" course which teaches the pre-requisite skills for technical training. This is followed by the "Blueprint and Gauge Reading" course. The company's Quality Department then conducted a refresher course in SPC and problem solving. After completing the basic series, employees were chosen to receive a six month ACME Training Program.

To strengthen the inhouse staff development capabilities of the company, the engineering staff will be receiving instruction on team involvement and training techniques for areas such as optical comparison and geometric tolerancing.

The workplace educator works with in-house or external trainers to identify basic skills which workers will need to participate in technical training courses. The curriculum in these programs is either **generic** -- drawing from adult education resources, or **applied** -- using the technical training content and materials as the context to teach the SCANS foundation skills. This applied basics training is almost pre-vocational in nature, in that, the learner is being exposed to the content of upcoming vocational training. Metal Seal & Products is an example of a progressively linked training program in a small company.

Tandem/Concurrent Training

This more recent approach attempts to structure basic education and technical training as mutually reinforcing activities by offering them concurrently. On one hand, basic skills instructors incorporate content and materials from the technical training course into the basic education activities. Learners thereby develop both basic skills and technical knowledge. They also acquire learning skills to succeed in technical training.

Conversely, technical trainers structure training activities in ways which give trainees opportunities to practice basic skills by applying them to work or training related tasks (e.g, requesting supplies, problem solving a machine malfunction, calculating a balance, filling in record sheets, or locating information in a training manual). This can be done on an individualized, as-needed basis or as a regular component for all participants in a technical training course.

BEST COPY AVAILABLE

The workplace education class is designed to prepare learners for the technical training which is going on at the same time, and the technical training reinforces the basic skills taught in the education class. In this approach, the traditional lines between "basic skills" and "technical training" become less distinct, with learners covering many of the same topics – although perhaps from different "angles" – at the same time. This requires close coordination between basic skills instructors and technical trainers to enable them to reinforce each other in concurrent learning activities.

Such integration ensures that each element of an organizational development initiative supports and builds on the other.

The Salz Leather case study shows how one organization integrated a variety of training activities with a larger organizational change strategy.

Merging of training with organizational change

This is perhaps the "ultimate" in integration. Not only are basic education and technical training activities integrated (as described directly above), but other organizational change activities are created or refined to reinforce what is being learned in the education and training courses. Some examples:

- The company might introduce a "pay-for-knowledge" incentive system, to reward learners for successful completion of basic education and/or technical training learning objectives.

CASE STUDY

Salz Leather Company is a mid sized tannery in California with a large Spanish speaking workforce. Its Training Department works closely with Cross Cultural Communications, a small educational firm, to provide all the employees with ongoing training.

Management recognized that to improve quality and safety, it had to find ways to shift the company to TQM and provide training for its employees. The company also wanted to improve employee satisfaction and create a pool of workers with the qualifications for promotion.

Since the needs assessment revealed that 60% of the employees had minimal skills in English, improving communication became a key component of training. Workplace literacy classes (ESL, business communications, math and problem solving) were offered to all employees. Course content was drawn primarily from the safety and technical training as well as real situations in the plant. Through ongoing communication with the supervisors, the trainer was able to identify and weave emerging training needs into the courses.

Safety training which is required of all employees, is offered several times a year. Because of this, sometimes the ESL class is taught concurrently. To help limited English workers, bilingual interpreters are used in the safety class and safety terminology is taught in the ESL class.

Training participants were taught how to ask more questions, to report problems and become more engaged in communication at work. Simultaneously, the supervisors were prepared to seek out this increased input. Foremen and managers were kept aware of what participants were learning and helped support learning throughout the week.

BEST COPY AVAILABLE

- The company might rewrite job documents to make them clearer and more readable for participants in the basic skills program.

- Team leaders might get special training in cross-cultural communications and/or in "how to run an effective meeting" so that they can help their workers to use their basic and technical skills back in the workplace.

This third approach requires even more coordination among those responsible for organizational change: education staff, technical trainers, production managers, technical writers, and others. This approach, though difficult, has the greatest potential for sustaining what is taught in basic education and technical training courses and for creating a true learning organization.

These three models differ in what is integrated, the degree of integration involved, and in who is responsible for creating change. Currently the predominant form is the "progressively linked "approach which uses basic education as a stepping stone to technical training. This is because most technical trainers feel employees must reach a prescribed level of competency in "basic skills" before they are able to learn anything else.

This assumption in many ways resembles -- and perhaps results from -- the traditional "school" notion that students first must learn "the basics" before they can learn anything else. However, this traditional mind-set is not appropriate in a workplace education situation, for the following reasons:

1. This over-focus on "first teaching the basic skills before anything else can happen" overlooks what experience and research is showing us regarding contextual learning and transfer of learning.

2. The prescribed level of basic skills required for a job is often stated in grade level terms that don't reflect the actual competencies which employees need to participate in technical training and other organizational development activities.

3. Adult workers typically already possess a good deal of prior knowledge about the job tasks they face. Further mastery of those tasks can be speeded up if learning activities draw on that knowledge rather than ignore it.

4. Workers typically are given limited time to learn basic skills. However, they do have considerable time on the job which they can devote to skill development. The job is thus a context in which learners can get in the practice time they need and actually learn how to apply basic skills in real, meaningful situations.

5. Transforming organizations to a high performance model requires multiple changes not only of individuals but of work processes, incentive systems, and all the other components of a work system.

SUMMARY

This chapter traces an evolution in thinking about who the stakeholders are in workplace education and training, why they are interested, how they have been defining the problem of workforce skills, and how they have been responding to the problem. The next chapter presents some steps workplace educators can take to prepare themselves to integrate education, technical training, and other organizational change activities.

SELF REVIEW

Now that you have read through this chapter, return to the questions you answered in the initial Self Study which you answered at the beginning. Answer those same questions on a separate piece of paper and then compare that second set of responses to your initial responses.

How is the second set of responses different from the first set? How is it the same? Are these questions you have dealt with before?

CHAPTER 2: CHANGING ROLE OF THE WORKPLACE EDUCATOR

In an integrated initiative, workplace educators need to be able to work with -- and respond to -- a wide range of stakeholders. Workplace educators are now being recast as "facilitators of learning teams" and need to prepare themselves with the technical and communication skills these new roles require.

Careful attention must thus be paid to developing appropriate systems for staff development. Staff should think of themselves as "practitioner-researchers" who will continually work with others to develop the knowledge and skills they need. Education staff should not only look to outside sources for guidance but internally within the companies they will work with, to tap into the knowledge and connections of other stakeholders. Appropriate forms of staff development need to be built into organizational development budgets.

SELF-STUDY

To prepare yourself for the following discussion of the new roles of workplace educators, consider your own experience to date and jot down answers to these questions:

1. What kind of tasks have workplace basic skills educators traditionally had to perform?

2. To create the kinds of integrated programs discussed in Chapter 1, what skills and knowledge might workplace educators need to have? (Write a job description for a workplace educator whose job it is to integrate basic education with technical training and other forms of organizational development.)

3. What areas of expertise do you feel you now need to develop to prepare yourself for future work in workplace education?

4. How might you develop that expertise?

5. What makes it difficult for you and other workplace educators to develop the expertise you need?

THE NEW ROLES EXPECTED OF WORKPLACE EDUCATORS

What does this evolution of thinking about stakeholders, their needs, and the role of workplace education mean for those responsible for planning and implementing employee education activities? For one, it requires educators to be able to communicate with a wide range of stakeholders. A plant production manager, a technical trainer, a union steward, and a recently immigrated worker are all likely to speak a different "language." An educator must be able to listen to what each has to say about the needs of the organization and the needs of individual workers.

The new world of workplace education also requires a willingness to move beyond familiar boundaries and, for example, figure out how to respond when stakeholders indicate workers need to "understand company policies," "participate in team meetings," "learn SPC," and "get their GED." Rather than try to quickly respond to those multiple requests with one "course," an educator needs to facilitate a more thoughtful process of carefully analyzing what various interest groups expect, negotiating realistic goals, and mapping out a range of possible learning activities. This process is a lot more than setting up a reading program. It requires ongoing communication with technical trainers, supervisors, workers, and other stakeholders to ensure relevance as well as integration of basic education services with other organizational change activities.

Workplace educators are now, in effect, being asked to do what the rest of the U.S. workforce is being asked to do:

Prepare ourselves to serve multiple "customers," carefully understand their needs, and develop customized solutions to respond to those needs.

We thus need to be multi-skilled, flexible, and willing to develop new knowledge; be able to communicate well and work in teams; have appropriate assessment skills; and be committed to continually refine our services in response to customer needs.

HOW TO PREPARE YOURSELF

Few workplace educators have had experience with these new roles of "facilitators of a multi-stakeholder learning team" and "integrators of multiple learning and development activities." These roles are not the same as the more familiar, stand alone teacher.

If these are new roles for you, you will need to take some extra time to prepare yourself. And, once you have done so, you will then have to find some allies willing to work with you to create new mechanisms for integrating basic education with other training and organizational change activities. Here are some ways of doing so:

1. Think of yourself as a "researcher-practitioner." Understand that you are taking on a new role and that you will have to develop some new expertise and organize yourself to prepare for that role. See your work as a pilot effort in which you will tryout some new ideas, probably make a few mistakes, and learn from experience. Don't be afraid to take some risks.

2. Build a support system. Find some allies either within your educational institution, the company or union you will work with, or elsewhere. These should be like-minded educators and others interested in developing new approaches to workplace education and change. Create a "support system" through which you can share ideas, give feedback, and provide mutual support. Such supports are necessary for innovators entering uncharted territory without the normal professional infrastructure of standard

procedures and peer supports. You might formalize yourselves a bit into a "study group" which meets periodically in person or communicates via telephone, fax or e-mail.

3. Identify questions you'll need to answer to take on a new role. With your colleagues, think about the task which lies ahead of you -- developing new ways of integrating basic education services with technical training and other organizational development activities. Brainstorm questions you will need to answer to perform that task. These might include:

- "What is the organization's overall strategic plan?"
- "What concepts and jargon (e.g., skills standards, ISO 9000, SCANS, benchmarking, TQM) are used here which we need to familiarize ourselves with?"
- "What training and other activities are already in place?"
- "How have those activities been coordinated to date?"
- "Who are the technical trainers and others responsible for organizational change activities?"
- "How have other organizations successfully created integrated models?"

4. Clarify where you might find information to help you answer those questions. For each of those questions, figure out where you might get the information you need. In some cases, you will be able to get it from training or human resource development officers in the host company. For other questions (e.g., "How have other organizations successfully created integrated models?"), you might read the kinds of resource materials listed in this guide and/or talk with others who have developed integrated models.

5. Gather information through reading, interviews, site visits... Take some time to "do some homework" and gather the information you need from the sources you've identified.

6. Analyze what you've found and prepare a "next steps" list. On your own and perhaps in a study session with colleagues, summarize and think through the information you've gathered. Prepare a "next steps" list which summarizes things you should keep in mind as you begin the work of re-orienting your employee education in an "integrated" direction.

By going through the above preparations, you will be re-orienting yourself in a "high performance" direction. You will, for example, be working with others to do research and develop a plan which will, in turn, enable you to do your work better. You will thereby be introducing yourself to a variation of the planning and learning process you will be going through with other stakeholders.

HOW TO PREPARE OTHERS

Outlined above are some steps you can go through on your own and with some colleagues with similar interests. These can help you prepare for the new roles required in an "integrated" approach to workplace education, training, and change.

But what about the other stakeholders you'll work with? Will you be working with other teachers, trainers, managers, union representatives, and others -- either in the classroom or as members of a planning group? What steps might help them prepare for the roles they will play?

In an integrated effort, traditional roles of "basic skills instructor," "technical trainer," "plant manager," and "supervisor," will likely have to be re-defined.

New roles stakeholders might play in an integrated effort

- "Basic skills instructors" will have to learn more about the jobs learners perform, and vocational training so that instruction can help learners prepare for current and future jobs.

- "Technical trainers" should learn more about basic skills so they can revise training activities to enable all workers to develop both their basic and technical skills together.

- Plant managers, union representatives, and supervisors might be called upon to serve as classroom resource persons. They might also have to revise company or union policies and procedures to help learners transfer classroom learning back to the job.

In all of these cases, those involved will likely need some help to rethink what their roles should be and then prepare for those new roles. Think of the various stakeholders you work with as the "staff" of your integrated learning organization. You should develop a "staff development strategy" to prepare all involved for the new roles they might play in an integrated effort. Remember that one of the components of a high performance workplace is "effective" use of all company resources, especially the insights and experiences of all front-line workers, in order to achieve continuous improvements in productivity."

As someone with responsibility for the basic education part of your integrated initiative, you will likely have a particular interest in preparing the instructors and others (e.g., curriculum developers, evaluators) directly involved in basic education activities. The remainder of this chapter focuses on what you can do to prepare basic skills staff. However, these issues and steps can also be adapted to the preparation of other stakeholders who will have roles in your initiative.

WHAT QUALITIES DO WORKPLACE EDUCATORS NEED?

To create high quality, integrated workplace education services, staff need a demanding battery of technical knowledge as well as interpersonal and organizational skills. While it is probably helpful for staff members to have some special technical expertise (in an area like ESL or reading), having too narrow a range of expertise will limit any individual operating in so demanding a context.

Doing this kind of work has been likened to being a Peace Corps Volunteer (PCV). Peace Corps tries to find candidates with

BEST COPY AVAILABLE

BEST COPY AVAILABLE

some technical expertise in the type of work they are to undertake and perhaps some knowledge of the language spoken in that country. But volunteers are often selected as much for their willingness to take on a challenge and their availability as for that technical and linguistic expertise.

The newly selected PCV is given a crash course in the culture (and perhaps language) of the country, and then posted to what is likely to be an unfamiliar setting with a different way of doing things on virtually every level. Volunteers typically are given little supervision; and they often come to rely on fellow PCVs, local friends and colleagues for moral and technical support. They receive only a limited living allowance and understand that this is not meant as a career but as a stint of only a few years.

All PC Volunteers experience culture shock, frustration, and homesickness. The successful ones rely on the strengths (creativity, self-confidence, technical know-how) they bring with them as well as on the good will and technical supports of those they work with. Many who don't have that combination of inner strength and external supports, however, aren't as successful as they might be in achieving the mission they came for.

The above example of the Peace Corps Volunteer gives us a framework of areas of necessary expertise and supports which might be applied to workplace educators, as well: (cite D. Rosen)

INGREDIENTS FOR WORKPLACE EDUCATORS

Willingness to try something new: Workplace educators need to recognize that creating high quality, integrated employee education services is an evolving field without clear guidelines or supports. It requires people willing to try something new, take risks, and make mistakes and learn from them.

Availability: Workplace education programs typically place unusual demands on education staff schedules. They need to be able to meet with stakeholders when those persons are available and run classes at odd hours. Providers coming from an outside educational institution might not only have to deal with the scheduling demands of one site, but also have to commute among multiple worksites and the educational institution itself.

Technical expertise: Workplace educators might need special expertise in areas like ESL, reading, math, and adult education. They might also need to know the technical requirements of particular jobs or company policies, as well as how to teach them.

Openness to working with other cultures: Workplace educators have to be willing and able to deal with a number of cultures at once: the larger organizational culture with its many subgroups, management, the union, and the ethnic cultures of the employees participating as learners.

Interpersonal and communication skills: Workplace educators need to be able to communicate within various contexts, for various purposes, and with various groups and individuals. Conducting a focus group for the workplace needs assessment, making a pitch to the union president or company CEO, and running a dynamic class discussion are all demanding tasks.

Perseverance, flexibility, endurance: Workplace educators must understand that, in most cases, "quick fixes" don't work. A solid workplace change initiative will require patience, time, steady work, and an ability to roll with the punches – the multiple frustrations likely to result when trying to pull together people with many different backgrounds to create a collaborative effort around a shared vision.

Ability to find social and technical resources: Because workplace education initiatives typically are new endeavors with limited resources, the infrastructure of technical resources (e.g., office and meeting space, appropriate print materials, etc.) aren't neatly in place ahead of time. Staff need to be willing to go scrounging, tracking down, negotiating for, and perhaps creating those material resources. The same goes for the social network which workplace educators need to sustain them. Staff need to be able to find allies and friends to call on when they have questions or need to vent concerns.

Being well organized problem-solvers: Not only must workplace educators need to be patient to deal with unfamiliar and unstructured situations, they must be well organized, pro-active and able to analyze those situations and create new, appropriate structures.

Ability to survive on limited resources: The reality of most workplace education efforts is that they operate on short-term, limited budgets. This is reflective of a shaky economy but also of the unproven nature of such efforts and the low priority traditionally given to educating workers. The financial security of workplace educators is impacted by all these factors. They need to be aware of this fact and be ready to tolerate limited salaries, benefits, and career ladders, while at the same time advocating – individually and collectively – for more appropriate, professional supports.

Note that the above list in many ways resembles the SCANS competencies and the American Society for Training and Development's list of "the skills employers want." Workplace educators are, like other American workers, now expected to perform many roles, solve problems, work in teams, and be efficient.

HOW CAN YOU ORIENT AND TRAIN STAFF

New staff are likely to bring some valuable knowledge with them. (Otherwise you wouldn't likely have hired them!). However, even if they have had e experienced working in other workplace education settings, they will likely not know the particular needs of your clients or be familiar with delivering an integrated training program.

They will thus benefit from a solid upfront orientation followed by initial and ongoing

training and support. As you plan each of these activities, keep in mind that you are trying to help staff to "stretch" themselves, learn about needs (e.g., particular technical requirements) and people (e.g., human resource specialists, technical trainers) they might not normally deal with.

This will require creative thinking on your part. You must first clarify what education staff need to know in a new environment and then provide multiple opportunities for staff to develop that knowledge. Rather than try to develop such a staff development plan on your own, work with the new staff themselves and with members of the education planning team to map out a strategy for your particular staff and context. By taking the extra time to provide these supports, you will help to ensure that staff are prepared for the special demands of this work. You will also model for staff some of the collaborative learning practices they might use in their work with learners.

To orient new staff, you should provide a clear job description, put together with input from other staff and planning team members. This job description should be seen as a draft to be continually revised as the new employee gets experience.

New education staff should be encouraged to get to know other staff and planning team members through formal (e.g., introductions in team meetings) and informal (e.g., happy hour) interactions. If possible, new staff should be part of the project from the start, involved in the workplace and individual needs assessments, strategic planning, and curriculum development. This immersion into the workplace and project culture will build staffers' understanding of and ownership for the project.

Staff should be given multiple opportunities to develop their expertise through:

Initial and ongoing workshops

Create pertinent staff development workshops in which participants can discuss issues and develop strategies to prepare them for the work they are to do. Rely as much as possible on the expertise present in your education planning team, and structure the staff development activities along the same collaborative problem-solving lines as those you might use with your learners in the classroom. Consider structuring activities on an "inquiry" model, with staffers identifying questions they want to research and then – as individuals or in groups – conduct literature searches, interviews, or field-research (e.g., trying out particular curriculum or assessment models) to answer those questions. They can report back their findings to colleagues, as a way of building each others' expertise and building a professional team.

These workshops can be in-house – just for your staff – or your staff can participate in "external" opportunities like conferences of professionals from other institutions. The latter have the advantage of providing opportunities for cross-fertilization but the disadvantage of not allowing your staff to focus specifically on the situations they face in the workplace they are working with. Some

combination of internal and external workshops is probably best.

When choosing which external conferences for staff to attend, encourage staff to look beyond the usual "adult educations" get-togethers. Consider events sponsored by the local chapter of the American Society for Training and Development, a university-based labor-education center or business school, the Chamber of Commerce, the Association for Quality and Participation, or the Ecology of Work. These institutions typically cover topics like work organization which educators might not be familiar with. Get on the mailing lists for these groups so you know what is available.

Staff training should not be viewed as a one shot deal with all the training being done up front at the beginning of the project. Staff will surely have many questions and ideas as the project unfolds and would benefit from ongoing formal and informal interactions with other professionals. In a series of informal "brown bag lunches," staff might meet to share ideas about "what works" and problems they are encountering.

Mutual feedback mechanisms

A system should be set up in which staff can communicate freely with each other about questions, concerns, suggestions they might have. These mechanisms should be structured to emphasize trust, respect, confidentiality, collaboration, and continuous improvement. Avoid letting them become gripe sessions or threatening situations.

These mechanisms might include regular staff meetings, quarterly reviews, e-mail bulletin boards, or suggestion boxes. Establish these mechanisms in the spirit of the "learning organization": to create a high quality initiative, we all need to pool our knowledge and figure out how to continuously improve what we do, individually and collectively.

Meetings of the education planning team are also opportunities for educators to get feedback on "how am I doing?"

This will help you avoid the too-common situation in which workplace educators work "in a vacuum," trying to figure out what to do in isolation from those with whom the should be working.

A staff resource room

As part of that initial and ongoing training, staff should be given access to resource materials. Set up a resource room containing articles, reports, handbooks, class records, assessment tools, sample lesson plans and instructional materials, etc. Encourage staff to use the room to share resource materials they've come across or developed.

Make a copy machine available, and put someone in charge of maintaining the room. Make sure instructors have access to a computer and printer to enable them to prepare lesson plans and instructional materials. The resource room might be seen as a safe haven for staff, where they can meet informally to share ideas, give support, and build expertise.

BEST COPY AVAILABLE

Support networks

The above workshops and resource room will help your staff build supportive relationships with colleagues inside and outside the program. You might take the extra step of setting up phone directories or an electronic-mail system through which your staff can keep in touch with resource persons inside and outside your organization.

Contact your state literacy resource center, ASTD chapter, the labor-education center in your state, or other institutions mentioned above. Ask those institutions whether, in addition to sponsoring workshops, they know of resource persons willing to establish informal mentoring and support relationships with your staff. From those contacts, you might develop a list of contact persons who are willing to be "on call" to provide feedback to your staff as ideas and questions arise.

Consider getting your staff "on-line" with the workplace education and vocational training electronic list serves which have popped up around the U.S. in recent years. Hook up the computer in your resource room to one or more of these systems. These give your staff access to useful information and contacts/

Note that, for staff who have not previously used e-mail, getting "on-line" can be intimidating, with considerable technical jargon and stumbling blocks to deal with. Rather than see this as one more burden in an otherwise busy schedule, staff might approach this as an experiment in self-directed, lifelong learning. Staff should figure out what they need to know and then find resource persons who can help them master it quickly and in a fun way.

Staff can use this approach to staff development to master all the other technical knowledge and skills they'll need to develop, as well.

Site visits and internships

Staff can often benefit greatly from well-organized site visits to other workplace programs. These visits might be extended and become "mini-internships" in which your staff work in another program for a week or two.

The visits should be carefully designed to ensure that they're not just "junkets" with superficial plant tours and classroom observations. As part of their "inquiry projects, staff might prepare a set of questions they want to answer during their site visits via interviews, observations, review of curriculum materials, and so forth.

As an alternative to sending your staff to another site, you might consider bringing in resource persons to interact with your staff for a day or longer. You might structure those interactions more formally (e.g., as workshops or round-table discussions) or less so (e.g., dinner-time conversations).

Staff retreats

You might also organize periodic staff retreats in which you (1) have fun and build solidarity among staff members, (2) discuss sensitive issues faced by staff and develop strategies for resolving them,

and/or (3) rethink program direction and map out strategic plans. An extended day or more together outside of the normal routine can greatly refresh the spirit of a group.

Resources for staff development in workplace education efforts are normally modest. This is even more true for programs operating in small businesses. These valuable resources thus need to be used carefully. Tap into existing resources as much as possible. Use phones and e-mail to reduce travel to meetings and conferences. Be careful not to use up your staff development budget too quickly. See staff training and technical assistance as vital investments.

One way to stretch your staff development resource and to build linkages with other organizational development activities is to have representatives of the "education" staff sit in on meetings of technical trainers, managers, supervisors, and union representatives. By so doing, the education staff will better understand how to work with those stakeholder groups and vice versa. The education planning team discussed in Chapter IV is a vehicle for making those links among stakeholder groups.

How can you support staff with appropriate salaries, benefits, and career ladders?

In discussions of the "high performance" organizational model, there is often heavy emphasis on getting people to work in teams, investing in technology, and other technical and social changes. Often overlooked in this discussion, however, is the question of how you reward people for undertaking these changes and improving operations. Ray Marshall's eight-point blueprint for high performance organizations (See Chapter 1) states that high performance workplaces must include ...

> *A positive incentive structure that includes: employment security; rewards for effectively working in groups; decent pay and working conditions; and policies that promote an appreciation for how the company functions as an integrated whole.*

Adult educators in general – and workplace educators even more so – tend to work as part-timers with limited pay, benefits, or opportunities for career development. This adversely limits the pool of qualified staff available to the field and, in turn, the quality of programs. Staff need to be paid for preparation time as well as classroom hours. They need health care and all the other benefits normally provided to professionals.

Advocating for appropriate staff development resources

Described above are steps you can do to prepare and support your staff. But, obviously, you need to have resources to support such staff development activities. You and your planning team should develop a clear staff development plan; numbers of staff needed; job-descriptions for them; how you will recruit, prepare, and support them; and the resources you will need to do all of the above. You also need to know where to look for the

resources you'll need. Typically you factor this into proposals you make to funders.

Beyond the immediate needs of a particular workplace program, however, you should be thinking about how to build the resources needed to create and sustain high quality workplace education services over time. You and your planning team might do this on your own in your interactions with funders, educating them about the potential and needs of the field. You should also, however, link up wiht other like-minded stakeholders, including not just "education types" but company and union representatives and learners. Create a constituency which educates those with resources about where those resources should be targeted.

SELF REVIEW

Now that you have read this chapter, answer these questions:

1. In the workplace you are to work with, what roles will you likely have to play?

2. How might you develop the expertise and other supports you will need?

3. What resources (both material resources and resource persons) can you tap into to help you prepare for your work?

4. What other supports (e.g., salary, benefits, ongoing technical assistance) will you need? And where will you get them?

CHAPTER 3: MARKETING COMPREHENSIVE SERVICES

The concerns of the business community for a skilled workforce have never been greater. The workplace is now seen as a place for continued learning. Education and training providers are responding by forming partnerships with business clients. To help them, federal and state governments are creating networks for comprehensive responses to these business needs.

To streamline the partnering process, itt has become necessary for training and educational agencies to develop marketing plans. These plans include strategies for finding businesses in need of training, strategies for selling the needed training, and the development of comprehensive, collaborative models of training.

SELF STUDY

Before you begin looking at new ways to market your services, jot down your answer to the following questions:

1. Does your agency actively seek out customers or do you wait for them to call you?

2. Do you have a plan for marketing your services? Does it include collaboration with other service providers?

3. How do you sell your services?

A MARKETING PLAN

A marketing plan clarifies ***what*** you have to offer, ***who*** you want to serve, and ***how*** you will sell your training to small businesses. There are many agencies and individuals offering workplace training, so if a company is going to select you, it will be on the basis of your quality, your cost, or because you offer a unique product.

Most "literacy" providers are currently delivering a broad set of basic skills training. However, few offer "Train the Trainer," "TQM" and "Cognitive Development" training. Even fewer can also provide technical training. So one way to be competitive is to offer a wide range of training to meet all the company's needs. Consider developing linkages with other departments or agencies to either jointly market your training or minimally, create a referral bank to help the company locate other trainers for these components.

Several states have developed this "one stop shopping" approach to marketing and serving companies. Wisconsin, for example, has set up regional Centers for Industrial Competitiveness (CICs) that bring together educators and government agencies that help companies in the areas of management, equipment upgrading and workforce training.

Deciding what companies to target is your next step. You can choose companies according to geographical area, classification (manufacturing, service, financial, etc.), size and/or location. By locating businesses in your area, you can narrow the search to geographically accessible companies. On the other hand, you may prefer to work with one or two industries to facilitate curriculum development. For example, if there are many metal stamping companies within your chosen geographical area, you may want to concentrate your selling efforts on just that type of industry. If there are a few factories, a few hotels and a few banks, you may want to try marketing training across industries. If there are clusters of similar industries/ businesses, you may be able to provide training to several companies on a collaborative basis.

While many small businesses may be in need of training, finding them and securing them as business clients requires careful planning and an organized, cost effective approach. There are two ways of locating prospective customers: you can find them and/or you can make it possible for them to find you.

Locating small businesses

1. Build on your current customers. If you have provided training to a large company, find out who their suppliers are and ask your company to recommend you for training. Also ask if they belong to a professional association and request an introduction to other members.

2. Use reference materials to identify target companies. Most public libraries have resource materials that list companies by business classification – metalworkers, service, construction, finance, warehousing and manufacturing. Among these sources are:

- *Directory of Associations*
- *National Directory of Addresses and Telephone Numbers: Business to Business Book*
- Telephone Yellow Pages listings for "Industrial Councils" and "Associations".

3. Contact local Chambers of Commerce and Small Business Administration offices. (listed in telephone book). They can provide you with a list of companies, their size, what they produce and their addresses. This source is particularly useful if you want to target a geographic area.

4. Network with business persons.

- Attend business related workshops
- Join professional and civic associations
- Participate in computer business forums

Helping small businesses to locate you

Making it possible for companies to find you can range from direct advertising to more subtle ways like promoting yourself as an expert. Marketing electronically via the Internet has become the newest tool to reach customers. To become visible as a training provider:

1. List yourself as a training provider with:

- National Clearinghouses*
- State Literacy Resource Centers* and customized training contacts*
- Telephone Business Directories

(*See Appendices E,G,H for contacts.)

2. Advertise your services via:

- Direct mail marketing
- Adds in association publications
- E-mail networks (e.g., CompuServe Classifieds)

3. Establish yourself as an expert.

- Send related articles and resource materials to business prospects.
- Conduct workshops for business/industry associations and civic groups (Rotary club, Kiwanas, ..).
- Submit articles to professional and industry journals, local newspapers, and PBS station.
- Participate in Internet business and training forums.
- Serve on advisory councils such as the regional Private Industry Councils, state and local vocational councils.
- Offer your services to a speakers bureau.

4. Network with providers of congruent services. Many agencies in your community are serving small businesses. By contacting these other providers, you can establish a mutual referral system or a cooperative agreement to jointly offer services to your clients. Among your potential partners are:

- Small Business Institutes - multiple sites in each state, often affiliated with community colleges or universities.
- Customized Training Providers - usually vocational trainers and management trainers affiliated with community colleges or universities. (See Appendix H for your state contact.)
- Manufacturing Technology Centers - partnerships involving government agencies, educational institutions and others that offer technical assistance, training and funding to small manufacturing companies (e.g., Wisconsin's CICs).

STRATEGIES FOR SELLING TRAINING

Selling does not begin when you walk in the door of a company. It begins with researching your prospective customer(s), their potential training needs, and the nature of training already done in the industries you are selling to. The reference materials and contacts mentioned above are a good starting point. Also read company brochures or newsletters and seek information from company staff prior to your visit.

This will help you prepare your presentation.

Recognize that companies are at various positions along the training continuum. Some are at the "I think there's a problem" point and others have a well defined strategic plan with integrated training activities heading toward common goals. Because of this variability, it is important to be able to accurately assess the company's knowledge of the training process so that you can begin talking about training at the level of awareness of the company. But then it is the training provider's responsibility to increase the company's awareness of the complexity of training, how training can tie in with a company's strategic plan, and its potential for impacting the individual and the company. Remember, ***first you have to sell them on the need for training and for comprehensive services*** (e.g., assessment, curriculum development, evaluation).

Be prepared to speak knowledgeably about company benchmarking, employee assessments and integrated learning. Although you may only be selling basic skills training, you will need to have some knowledge of how it will tie into other employee training such as technical training, TQM, IS0 9000 and other informal, on the job training.

Next, ***show that you are the provider for the job***. If you have done a good job of explaining how workplace education can help meet their specific needs and showing the success you have had in other companies, this will establish you as an expert. Now be prepared to answer their questions. If few are asked, help them by stating "You may be wondering...".

Remember that you will have a limited time to sell yourself. Have products to show and leave with the company such as:

- a brochure that clearly describes the training you offer
- a sample grant proposal
- literacy audit, evaluation report or other products
- a cost sheet which breaks down costs by service component
- a list of references (companies for whom you have previously provided training)

What you need to know about the company

General company information:

- focus of business (product/service)

- number, demographics and turnover rate of employees

- types of jobs and career ladders

- union or non union workforce and how that effects training

- company status (maintenance, downsizing, rapid growth)

- organizational structure (traditional, participatory, self-directed teams)

Company training history:

- Who participates in training?

- What type of training has been offered? (formal/ informal, literacy, technical, work restructuring, management)

- Who conducts training? (staff, consultants, vendors, local college)

- What training has succeeded/failed?

- Why was it considered a success/failure? (intended outcomes vs. outcomes)

- Has the company ever accessed any federal or state training funding?

What does the company want to know about you?

Expertise

Do you have experience supplying workplace training to small businesses?

Are you knowledgeable of industry/business practices and terminology?

Are you able to offer training in various areas (workplace education, technical training, work restructuring, safety, etc.)?

Can you offer comprehensive services (grantsmanship, program management, assessment, curriculum development, and/or evaluation)?

What kind of results have you had in other companies?

Do you have references from satisfied customers?

Program Design

Do you use a participatory planning process that involves management, supervisors and employees?

What type of needs assessment and testing will you perform, if any?

Can you supply a customized curriculum that is linked to the company's strategic goals and employee needs?

What strategies would you use to integrate workplace education with technical training and other company training?

How will the results of training be assessed and reported?

Instruction

Are the instructors experienced work-based trainers?

Will your performance be monitored by the provider?

How will instruction be tailored to the individual needs and skills of the employees?

How will employees' progress be assessed?

Can training be offered in a location convenient for employees?

How flexible is the provider in scheduling instruction?

Cost

What are the costs and can they be itemized for each phase of the program?

Can you access different funding sources for worker retraining?

SELF REVIEW

Now that you have read this chapter, answer the following questions:

1. How might you enhance your marketing outreach activities?

2. Who are potential training partners in your area?

3. How can you strengthen your sales approach?

CHAPTER 4: COLLABORATION THROUGH A TEAM APPROACH

Workplace educators interested in integrating what they do with technical training and other organizational development activities need to find "user-friendly" ways of working with the other stakeholders involved in those activities. Smooth collaboration can ensure clarity of goals and coordination of services and also build the kind of teamwork needed by any high performance organization. One vehicle for such collaboration is a planning team composed of representatives of the stakeholder groups involved in your initiative.

Creating a team requires careful preparations by those who will facilitate the team process. Members have to be carefully selected and prepared for the roles they will play, and team activities must be tailored to the strengths and limitations of those who are to be involved.

SELF STUDY

To prepare yourself to successfully work with other stakeholders, jot down answers to the following questions:

1. How well have you been able to collaborate with other stakeholders in your workplace programs?

2. What obstacles have you encountered when trying to communicate and collaborate with those stakeholders?

3. What might be some ways to build smooth communications and operate effectively as a team with other stakeholders?

IMPORTANCE OF COLLABORATION

Let's assume that your goal is to now create an employee education effort which is integrated with other training and organizational change activities. To do so, you will have to ensure smooth communication and collaboration among those involved in the various activities. The interested parties are the "stakeholders" you will be working with. (See Chapter 1 discussion of possible stakeholders and their interests.)

Effective communication and collaboration among participating stakeholders can ensure:

- Clarity of goals for the larger integrated effort and for individual activities (that is, goals which all stakeholders understand and support).

- Coordination and continuous improvement of initiatives/services to meet goals (to ensure that the activities mutually reinforce each

other and to avoid unnecessary redundancy of or competition among various activities).

- Reinforcement of team identity and skills vital to the organization (Stakeholders can build relationships and decision-making mechanisms applicable beyond the task of planning education and training activities.)

A solid working relationship among partners can help you avoid the familiar scenario in which class schedules conflict with production schedules; supervisors don't know what their workers are doing in class; and managers, union representatives, learners, and educators are all aiming at different goals.

Key ingredients for collaboration

An integrated approach to organizational development is for most companies something new. The infrastructure of supports which is needed to integrate an employee education program with technical training and other organizational change activities is normally not in place. Those responsible for planning an education program should create a planning team – or adapt an existing planning committee or similar structure – to create a "home base" (an infrastructure) for collaboration.

To create an effective planning team, stakeholders must do some extra work to ensure communication and collaboration among the stakeholders who will be involved. Workplace educators, however, tend to overlook this fact. They often come from formal educational institutions in which infrastructures for scheduling, recruitment, and reporting are already in place. Educators understandably tend to see their role as "developing curriculum" rather than "developing partnerships."

To prepare themselves for that expanded role, workplace educators should be aware of the key ingredients for effective collaboration:

Time Stakeholders need to have a reasonable amount of time to give to the real work of the integrated effort. Without it, work doesn't get done – or is done by only a few members – and the team isn't really a team. Team members not only need to be able to set aside discrete amounts of time, but to "stick with it" – commit themselves to sustaining the effort over time.

Expertise While members don't have to be trained as "team leaders" per se, they do need certain kinds of knowledge and skills. They need expertise both in their own areas of responsibility (e.g., technical training, adult basic education, work processes, etc.) and in how to work as a planning team. For the latter, members need to be able to perform such functions as brainstorming, recording ideas, and organizing information. While some of these team decision-making skills can be developed through special training, the work of the team will be speeded up if members already have at least a basic level of these skills when they join the team.

Attitude Members need to see a value in an integrated change effort and want it to succeed. They also need to see the planning team as a means of ensuring a

successful effort. They need to be willing to work with others, challenge some familiar assumptions, take some risks, try something new.

A mix of workplace roles and backgrounds

Members should represent a range of workplace roles (jobs). They should also be a representative mix of ethnic and linguistic groups, genders, ages, and abilities.

Workplace educators shouldn't see this function of building effective partnerships as something extraneous to the "real" task of working with learners. In an "integrated" workplace change effort, both functions are important because an integrated program is as much about changing the larger organization as it is about changing individuals. And, to ensure that learners are able to really use what they are learning in education and training programs back on their jobs, those responsible for various organizational policies and procedures need to coordinate what they are doing with what is happening in the education program.

How to create and sustain effective collaboration

Collaboration doesn't just "happen." Someone has to create mechanisms which enable stakeholders to communicate about goals, plan and coordinate activities, monitor progress, and make decisions to continually keep their efforts on target. Here's an example of one program which has created such mechanisms:

REACH thus acknowledges the need to put effective planning structures in place and to help all key stakeholders play appropriate roles in planning.

Drawing on the experience of REACH and similar programs, here are some steps you might go through to create an infrastructure for effective collaboration:

1. Prepare yourself to serve as "team facilitator."

Experience in REACH and similar programs shows that, if you are going to take a lead in creating an infrastructure for collaboration, you will need to prepare yourself for what might be an unfamiliar role of "team facilitator." To do so, you might consult some reference materials on team-building and-facilitation, go through some special training courses on that topic, and talk with other workplace educators who have taken on that role. (See Chapter 2 for a more-detailed discussion of how you might prepare yourself and others you'll work with.)

Be aware that, while "teamwork" sounds like a good idea, building a team and making it work are not always easy tasks. When teams work well, great things can happen. But teams typically encounter confusion and conflicts at some point in their evolution; mechanisms need to be in place to resolve those problems, learn from that experience, and move on to create an even stronger team.

REACHing out: Creating an infrastructure for collaboration

Project REACH is a joint employee education effort of the New York Governor's Office of Employee Relations (GOER) and the Civil Service Employees Association (CSEA). Among the education services provided by REACH are basic skills programs tailored to the particular interests of employees in mental health facilities, university campuses, and other state-operated institutions. Many of the REACH sites are in small government facilities (such as group homes for developmentally disabled adults) which, in effect, operate as small businesses.

REACH administrators learned from experience that effective programs require clear communication, goal-setting, and buy-in from the various interest groups represented at the various sites. Managers, supervisors, union representatives, workers, and education staff needed to be actively involved, or the education program is likely to end up being irrelevant to or not supported by those whose support is needed.

REACH administrators concluded that they need to be concerned not only about **"curriculum development"** but about what they called **"site development,"** as well. To ensure that both functions are properly carried out, REACH (1) requires each site to have curriculum development specialists to tailor curricula to that site's needs, and (2) provides specialists in site development who work with each potential site.

Those site developers first communicate long-distance (by phone, fax, and mail) with each potential site, to determine if that site meets basic criteria for REACH funding. If the answer is "yes," the site developers then will determine whether the proposed education program will benefit from being planned and managed by an education planning team. If "yes," then the site developers might travel to the site and provide technical assistance to help form the team and lead it through a planning process to ensure an effective program.

Here's what one source has identified as characteristics of effective learning teams:

- Clear, cooperative goals
- Accurate two-way communication
- Widespread participation and leadership
- Consensus decision-making
- Power and influence based on expertise
- Frequent controversy
- Open confrontation and negotiation of conflicts
- High cohesiveness
- High trust
- Acceptance and support
- Individual responsibility and accountability, sharing, and achievement
- High interpersonal skills

Adapted from Joining Together (Johnson and Johnson, [1991] Englewood Cliffs, NJ: Prentice Hall)

2. Pull together an initial version of a team.

You won't be able to fully create a team until you have identified what it is you want a team to do. To clarify purposes and goals for a team, you will need to do the kind of needs assessments described in the following chapter.

However, to do those needs assessments, you will need an initial "working" version of a team to work with. To create such an initial team, you will need to identify potential team members; understand their motivations, strengths, and limitations; and tailor team activities to their strengths and limitations, as shown below:

BEST COPY AVAILABLE

Identify potential team members. If you are an "outsider" with little or no direct knowledge of the culture of the company you will work with, you should link up with one or more contacts from the organization. With your contact (s), first clarify who the organizational stakeholders are who might in some way work with your workplace education initiative. Which managers and supervisors, trainers, union representatives, potential program participants, and others in the organization might want or need to have a role in planning and sustaining your program?

Clarify how much time, interest, and other resources potential members have. Then talk briefly with each of those stakeholders. Explain that you are exploring creating a planning team which will coordinate and integrate various education, training, and other workplace change activities.

Ask them whether they might have an interest in participating in a team and, if so, how much time they can give to meetings or other communications with you. Figure out which of them have particular communication skills (e.g., abilities to write reports or facilitate meetings) and resources (meeting rooms, copying machines) at their disposal. Get a sense of which stakeholders are particularly interested in working as part of a planning team and which are less so.

Ideally, you will identify a number of stakeholders with different roles in the organization and who might play various roles in planning and supporting an integrated workplace development initiative. This group should have the right mix of time, expertise, and attitude to ensure a broadly-supported effort.

Work with members' strengths and limitations. A "team" provides a structure for facilitating communication among stakeholders. The facilitator of your team will need to respect the relative strengths and limitations of each member, and design team activities accordingly. For example, while you don't want to short-change discussion about important topics like program goals, you have to be careful not to hold too many meetings or let them drift off the topic at hand. If you do, busy stakeholders will likely stop attending meetings or leave them before they are over.

You might have to use individual interviews (in person or by phone) or questionnaires to get input from stakeholders unable or reluctant to attend meetings.

To make the best use of stakeholders' valuable time, you will have to negotiate how much time you can give to joint activities, and how much activities need to be carried out by selected individuals or smaller groups.

The same goes for you and your fellow education providers. You might have to divide up responsibilities for who leads meetings, collects information, writes reports, and serves as liaison to particular organizational constituencies.

As you get into the specifics of planning team activities, keep these factors in mind.

3. Conduct your first meeting.

You now have a group of people lined up who have expressed interest in creating a system which integrates education, training, work-restructuring, and other organizational development activities. Most of these people probably already know each other and work with each other. In your first meeting, you need to be clear what you hope to achieve by working with them.

Explain the value of an integrated effort and of a team structure as a means of planning and sustaining such an effort. Refer to the arguments presented in the previous chapter and earlier in this one.

Then explain the steps you and the team might go through to plan, implement, and monitor an integrated effort. Refer to the following chapters which describe the following steps you might go through with the team:

- Assess the needs of the organization and individuals
- Create a strategic plan for an integrated effort
- Develop and implement appropriate learning activities
- Monitor progress and refine your strategic plan
- Prepare those responsible for conducting the above activities

Explain that, as you get into these activities, the team will divide responsibilities among members.

Structure these discussions as "dialogues" rather than "lectures." Ask members to give their own ideas -- and ask questions -- about the purposes of integration and a team planning process.

4. Clarify who will serve as leader.

The role of leader -- or "facilitator" or "coordinator" -- of a planning team is a vital one. This is the person who must do most of the "grunt" work of organizing meetings, keeping track of records, and writing reports.

In fact, the team might divide this work among several different people. The more the work of the team is shared, the more likely it is that members will take ownership for the group. This will also reduce the likelihood that one person will burn out from overwork.

The leader(s) of the team must have all of the characteristics described above under "Key ingredients for collaboration." Leaders must also have qualities like patience, perseverance, an understanding of democratic principles and procedures, willingness to listen and encourage good ideas, ability to communicate clearly, and ability to balance the many interests represented in the group. Bookstores are full of "how to be a good leader" guides. You might read a few of them.

5. Ensure that all members can participate in meaningful, productive ways.

The fact that someone joins a team doesn't necessarily mean that he or she will automatically feel comfortable and be able to be an active participant. Ideally, all members will be able to have a high

degree of responsibility, control, and reward vis-a-vis the group's activities.

Some members, however, might lack some of the skills or the self-confidence needed to participate in a team. In some companies employees may not have had the opportunity to speak up, take risks and make decisions before. Or there might be discord or competition among particular individuals or interest groups which will make it difficult for them to collaborate in your team.

You need to -- in a diplomatic way -- make it clear that all members should be encouraged to participate actively. Make it clear that they can talk with you privately if they feel inhibited from participating actively -- for any reason.

You also have to be sensitive to group dynamics and structure discussions so that all members get an opportunity to speak. In multilingual workplaces, you might need an interpreter or have language minority groups form smaller groups in which they can speak freely in their own tongues. You might have to limit the amount of reading and writing tasks for members who don't feel comfortable with print. Members might take turns preparing presentations or serving as recorder, so that all get a chance to play a variety of roles.

In addition to structuring day-to-day team activities in ways to nurture full member participation, you might also organize special events to instill a team identity and open communications. You might, for example, arrange an informal lunch, picnic, or evening at the ball game. Perhaps the company has an annual volleyball tournament and your team could participate. You might, if resources permit, go to a special "team training" workshop or retreat.

Just be sensitive to the fact that you will likely have to continually nurture a team identity and "infrastructure" to enable members to participate fully. Don't expect members to automatically begin operating as a cohesive unit just because you've gotten them to sit down together and call themselves a "team."

6. Keep in mind the special needs of particular interest groups.

As previously noted in this and other chapters, you will be working with a number of individuals and stakeholder groups each of whom bring particular interests, strengths, and limitations to the planning team. Although there is a danger in overgeneralizing and stereotyping any group, here nonetheless are some things to keep in mind about various groups.

Production Managers: Tend to have a greater interest in the "technical" side of the organization and approach the team with the following question in mind: How will this activity help us meet production and quality demands? However, also can and do have an interest in helping workers achieve personal development goals, if for no other reason than this ensures good worker morale and loyalty to the company. Tend to be very busy and able to devote only limited time to meetings.

Human Resource Managers: Tend to have a special interest in the "social" side

of the organization. Increasingly are interested in creating a "learning organization" and thus are likely to be attracted to the integrated model discussed in this Guide. Tend to have more experience with "team facilitation" issues and might be called on to help lead team meetings and serve as resource person to learning groups.

Technical Trainers: Could be an in-house professional trainer, a company supervisor or team leader, a trainer from an external educational institution (e.g.,a community college), or a supplier (e.g., of a particular piece of equipment). Trainers with a longer-term relationship with the organization are more likely to see a value in participating in your team. May or may not understand how basic skills instruction can be merged with technical training -- and vice versa.

Union Representatives: May or may not have a positive working relationship with the company. Important to involve both union and management in the team if possible. Union representatives tend to have a special interest in ensuring "quality of work life" (e.g., fair wages and benefits, promotional and educational opportunities, etc.) for workers. Unions also are concerned about maintaining the economic viability of the organization, to ensure worker job security. Union stewards are often seen as "one of us" by workers and can thus serve as conduits of information between the planning team and workers.

Supervisors and Team Leaders: Can make or break your efforts. Can "make" them by providing insights about day-to-day shop-floor learning needs and opportunities, as well as by encouraging learners to use what they are learning back on the floor. They, however, can "break" your efforts by blocking worker participation in classes, withholding useful information, or not doing all they can to encourage workers to use what they are learning. You might have to set up special mechanisms to help busy supervisors be part of your team. You might, for example, have to run special focus groups just for supervisors or go out on the floor and talk with them individually where they can show you what they are talking about.

Basic Education Instructors: Instructors from an outside educational institution might feel bewildered by the foreign culture represented in the workplace they've been asked to serve. They often are not paid much -- if at all -- for time spent in planning team meetings. They might for these reasons be reluctant to participate actively, even though the team would give them an opportunity to get the organization better and build relationships with people who can help their classes succeed. Can serve as key sources of information for other team members about learner needs, interests, and progress.

Learners: With a range of questions and concerns. They tend to want to know how the effort will improve their situation and help them meet their own goals. They don't want to be threatened in any way -- either by participating in a class or in the planning team. Might feel inhibited from speaking up in a planning team meeting, but might be willing to give input via individual interviews and/or in a focus group just for learners. Having learners

on the team can be a great way of opening up communications with other learners and showing the value of participating in your initiative. But how free they feel to participate will depend on their own self-confidence and skills and on how much you respect their knowledge and needs and, thus, how "welcomed" you make them feel.

The last point made about learners -- the need to respect members' knowledge and needs -- is true for all stakeholders on your team. Another common thing to keep in mind for all members: they are all busy, so don't overwhelm them with too many requests.

7. See the team as a forum for ongoing planning.

The remainder of this Guide describes key functions of a planning team: assessing organizational and individual needs, developing a strategic plan for an integrated effort, developing meaningful learning opportunities, and monitoring progress.

The planning team should be viewed as a forum in which the stakeholders involved in changing the organization can figure out who takes responsibility for various activities, to ensure an efficient, high-quality, integrated effort.

SELF REVIEW

You have now reviewed reasons and steps for creating a planning team. With that information in mind, think through how you might build a team in the workplace(s) you plan to work with, by answering these questions:

1. In the workplace(s) you are to work with, who are the stakeholders you might work with?

2. How much time, interest, and expertise are they likely to have to work with you in a team?

3. What preparations do you personally need to prepare yourself to facilitate a team process?

4. If no planning structure already exists, what steps will you take to form an initial version of a team and get a team process rolling? If some kind of planning structure already exists, how might you work it to integrate your education activities with technical training and other organizational change activities?

CHAPTER 5: CLARIFYING ORGANIZATIONAL AND INDIVIDUAL NEEDS

Assessment is a tool for creating "high performance" workplace development initiatives. It can help stakeholders clarify what needs the initiative should serve and then monitor operations to ensure that those needs are being met.

As outlined in Chapter 1, workplace educators are faced with the challenge of responding to the multiple, sometimes interwoven, sometimes divergent needs of a number of stakeholders. An "integrated" effort is even more complex. Educators need to work with trainers and others responsible for organizational change to affect not just individual workers but the larger organization.

This chapter presents guidelines for conducting organizational and individual needs assessment procedures. This two-part assessment system can help identify the needs of both, the organization and individual employees in order to tailor a range of services to meet those needs and provide stakeholders with comprehensive information about needs and progress which they must plan and continually improve.

SELF STUDY

To prepare yourself for the following discussion on needs assessment, please jot down answers to these questions:

1. In your workplace education efforts, what kinds of assessment activities have you used?

2. In those assessment activities, what information did you come up with? Who used that information?

3. What kind of problems, if any, did you encounter using those assessment activities?

4. Given your experience, what kinds of assessment tools would you prefer to use in the future?

A TWO-PART NEEDS ASSESSMENT STRATEGY

In the early days of workplace education, practitioners tended to rely on "some kind of test" – often a standardized reading test taken directly (or adapted) from schools – to get some kind of estimate of learner ability and need. These tests tended to measure "literacy skills" in the abstract, not as they are applied to real life tasks of the type found in the workplace. As such these types of tests have increasingly been seen as not very relevant for job-related education.

In the mid 1980s, many workplace educators began to use a literacy task analysis (or literacy audit) to make their programs relevant – "functionally contextual" – to the workplaces they

wanted to serve. This process attempts to zero in on the literacy skills which participants in the worker education program need to do their jobs. The underlying assumption is that this process can help clarify the knowledge and skill gaps which prevent an employee from performing his/her job. Instruction can then focus on helping the employee to fill those gaps.

More recently, workplace educators attempting to create more "integrated" initiatives have developed an alternative way of identifying needs. This two-part needs assessment strategy first looks at the needs of the larger organization to clarify the range of activities this might undertake to meet its goals. For those with a special concern about employee basic skills, this ***workplace needs assessment*** can show whether and how education and training activities might play a role in the larger organizational change effort. This helps workplace educators to understand the "big picture" of the organization, and work with other change agents in the organization to create a sustained system of mutually supportive education, training, and other activities for maximizing employee potential.

The second part of this needs assessment strategy is ***individual assessment***. Once the workplace needs assessment has identified one or more possible basic education or technical training activities, planners can meet with individuals to clarify those individuals' personal learning needs, interests, and abilities. Planners can then get a clearer picture of how to tailor learning activities to the particular abilities and interests of the participating workers.

This two-part strategy for clarifying needs allows all stakeholders to have a say in defining what your integrated initiative should focus on. You can then use the resulting information to build an integrated strategy for meeting the multiple goals represented in the workplace. The literacy task analysis process and tests referred to above might play roles in this process, but are not by themselves seen as the needs assessment. Details of this two-part approach to needs assessment are shown below.

What is a "WNA?"

A workplace needs assessment (WNA) is a systematic way of figuring out how education and training fits into the organization's change strategy. A WNA helps workplace educators and other stakeholders to (1) understand the needs and interests of both the organization and individual employees and (2) identify education, training, and other activities which might meet organizational and individual needs.

For those responsible for employee basic skills issues, a WNA can document where basic skills related activities are needed and how those basic skills activities might support – and be supported by – technical training and other change activities.

Why do a WNA?

A WNA can provide stakeholders with a knowledge base and a decision-making

mechanism which they can use to create a truly integrated workplace development effort. By specifying a range of educational, training, and other organizational development activities which an organization might undertake, a WNA ensures that realistic expectations are set for each type of activity.

For example, rather than assume that a single basic skill or other activity can by itself meet all of an organization's needs, stakeholders will have a clearer picture of what role education can reasonably play.

A WNA can also identify organizational needs which can become topics for basic skills and other education and training activities. Planners can thereby make a closer "fit" between various education, training, and work-restructuring activities, in some cases merging them, and generally making them as mutually reinforcing as possible. A WNA can also build awareness, ownership, and support for an integrated workplace development initiative among all levels of the workforce.

Who would conduct it?

A WNA would be the first major activity overseen by a planning team. This team would oversee not only the WNA but all other components of the integrated organizational development activities. As described in the previous chapter, this team would be composed of representatives of key stakeholder groups: workers, managers and supervisors, unions, technical trainers, and education providers.

Much of the work of the WNA would be carried out by one or a few team members with the time, expertise, and "neutrality" required. In many cases, an outside education agency represented on the team might play this role.

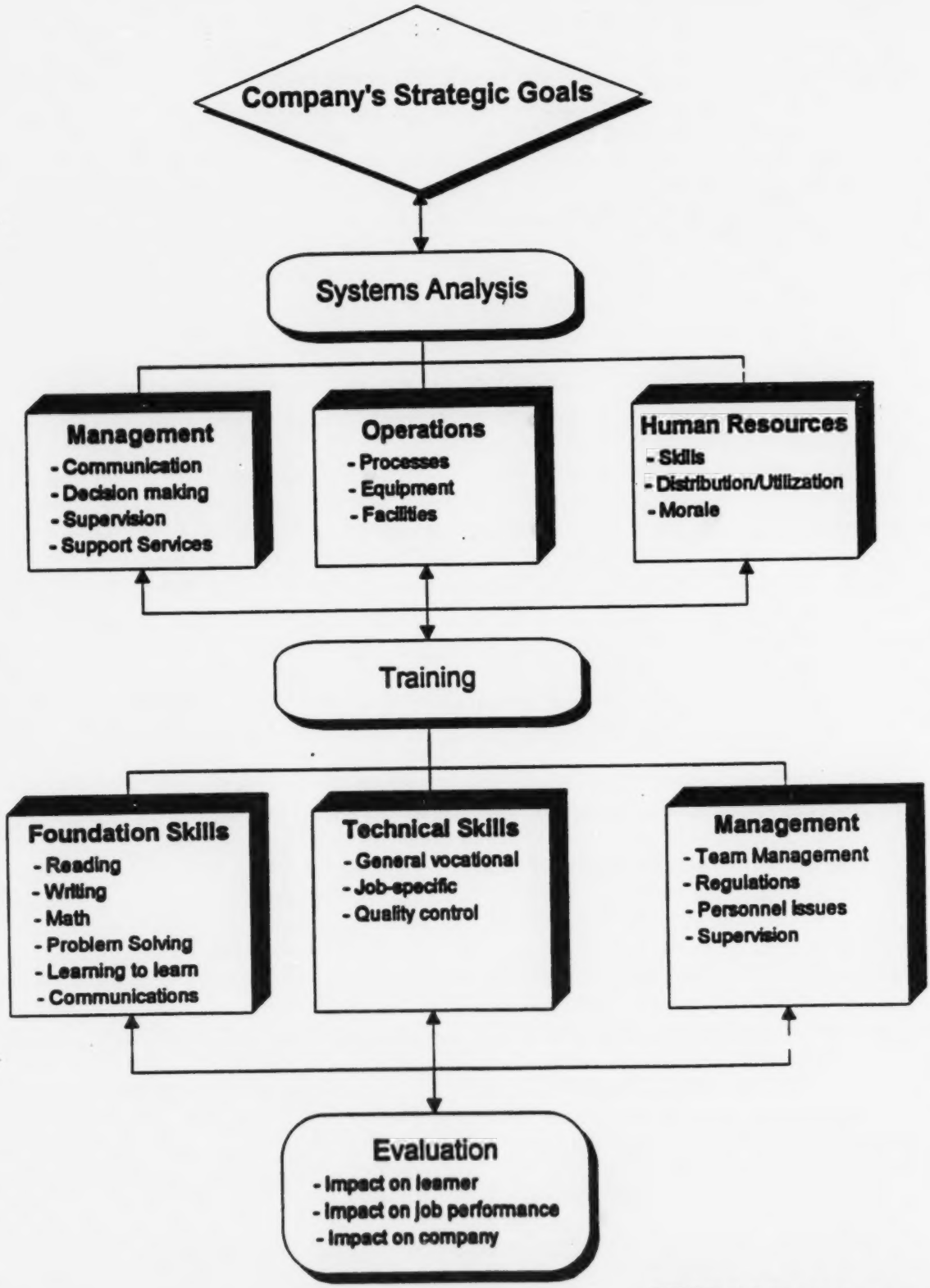
How do you conduct a WNA?

Develop a goal statement for the WNA. Clarify what the team hopes to achieve by conducting a WNA. (See "Why do a WNA?" above for possible purposes.)

Clarify what information the team wants to collect.

Decide where you'll get your information and design information-gathering activities. WNAs typically use interviews, focus groups, and possibly questionnaires to collect the information they need from a representative sampling of the various stakeholders in the organization and on the planning team. Information might also be gleaned from various documents (e.g., annual reports, strategic plans, and education and training records) and through observation of workplace and education/training activities. Help the team decide how it will collect the desired information from those sources. Field-test your activities and refine them.

Collect the information you need using the activities you designed. One or more designated team members will collect the information from the agreed-upon sources. To ensure honest responses, it might be useful to have a "neutral" person (such as an outside educator) conduct interviews and focus groups.



BEST COPY AVAILABLE

Organize and summarize the information collected. Designated team members need to carefully organize the information as it comes in and then summarize key findings, identifying patterns and themes which emerge.

Analyze that information and prepare a report with recommendations. Team members should carefully review the information gathered and interpret it, with a special focus on "How can we use this information to improve what we are doing so we can meet stakeholder needs?"

Present your report and agree on actions to take. The team should present its findings to key stakeholder groups, and then agree on actions to be taken to create a better-integrated system of education, training, and other organizational development activities.

Prepare an action plan and follow up to ensure that actions are taken. Team members should prepare a detailed plan to pilot and refine the agreed-upon actions, and then oversee the implementation of that plan.

How does a WNA differ from other types of assessments?

As described above, "assessment" in workplace basic skills programs has often relied on individually-oriented tests and literacy task analyses. This focus on the individual, however, reinforces the notion that job performance is primarily the individual's responsibility. It ignores the more complex reality that job performance is a function of both the ability and effort of the individual and the supports (or lack of supports) provided by

Possible WNA questions

- *What kinds of changes are going on in the organization?*

How have work processes changed?

How has equipment changed?

What if any new standards or regulations (e.g., for quality, safety, environment) is the organization responding to?

How has the workforce changed?

- *How are stakeholders responding to those changes?*

What goals are management, the union, and workers setting for themselves?

What do they want the organization to be able to do?

What do they want individual workers to be able to do?

What strategies are they developing to respond to those changes and meet their goals?

What obstacles are blocking stakeholders from meeting their goals?

- *What roles do basic education and/or technical training currently play in the organization?*

What education and training activities are now in place within the organization? (And what other mechanisms -- like attending adult education courses on their own time -- are learners using to meet their goals?)

How successful have those activities been in helping stakeholders respond to change and meet their goals for the organization and individuals?

What are the strengths and limitations of those education and training activities?

- *What education, training and other organizational change activities might now be introduced?*

- *Which of the above stakeholder needs should the planning team now focus on?*

How might the current educational, training, and/or other organizational development activities be altered or eliminated to help stakeholders meet their goals?

What additional educational, training, and/or other organizational change (e.g., work restructuring, clear writing, incentive systems, etc.) activities might be introduced?

BEST COPY AVAILABLE

the larger contexts within which the individual operates.

A WNA broadens the focus of assessment to include the organization within which the individual (in this case the worker-participant) works. A WNA assumes that a healthy organization requires continuous improvement (change) by not only individual employees but also by other stakeholders in the larger organization.

A WNA is a procedure for assessing the organization's ability (readiness) to effectively use the knowledge and skills of its workforce. When combined with assessment of individual workers' abilities, a WNA can give a comprehensive picture of what the organization and the individual workers need to do to meet their goals for continuous improvement.

NEW DIRECTIONS FOR INDIVIDUAL ASSESSMENT

As noted above "assessment" in workplace basic skills programs has until recently tended to rely on "testing" of individuals (often with some kind of non workplace-specific standardized test) and possibly a "literacy task analysis" process for identifying gaps between worker knowledge and job demands.

More recently, workplace educators have questioned those forms of assessment on the following grounds:

- Rather than focus so heavily on learner "deficits," assessment should instead generate information about what the learner does know and is interested in. These abilities and interests can then be built on, to create positive, dynamic learning opportunities.

- Rather than focus on abstract, decontextualized "skills" (as can happen when standardized tests are used), assessment should look more directly at learner abilities and interests related to tasks which they and other stakeholders agree are important. Learning activities might thus include:

  Relatively discrete knowledge and skills: In some cases, stakeholders agree that a particular cycle of learning activities focus on helping employees master specific tasks (e.g., the math required to read a gauge).

  Multiple, transferrable skills: In many workplaces, instead workers are increasingly being asked to perform multiple tasks rather than a few tasks over and over. Many of the new responsibilities (e.g., "understanding systems," "working in teams," "problem solving," "decision making") embraced by workers require what formerly were considered "higher order" skills but which now are more and more seen as fundamental competencies. (See Chapter 1 for discussion of SCANS.)

  Interest and skills for lifelong learning: In many cases, workplace development efforts focus on building employee interest and skills for personal learning and growth. This nurturing of an interest in learning and trying something new is seen as a means of creating the

foundation for a "learning organization." Preparing learners for the GED or community college and helping them get involved in their children's schooling are thus sometimes included as goals for a workplace development initiative.

Those responsible for assessment should thus understand the broad range of expectations which stakeholders might bring to a workplace development effort. Depending on what stakeholders want learners to be able to do, assessment could focus on tasks taken from learners' current or future jobs or from their lives outside the job. The contextualized competencies (skills) required to perform those tasks could range from fairly simple to complex. The following grid uses sample SCANS competencies and foundation skills to show the range of possible focal points for individual assessment:

Possible focal points for individual assessment

Assessment would clarify the interest and ability of the learner vis-a-vis sample tasks in the three categories of "current job tasks," "future job tasks," and "tasks from outside the job." The sample tasks covered would be agreed upon by the planning team and learners.

- Rather than use assessment activities which are seen as something apart from learning (and perhaps disruptive or threatening), programs should use "seamless" forms of assessment which are part of the learning process and which respect learners' desire for confidentiality.

Workplace educators with the above concerns have begun developing alternative forms of collecting and using information. These tools borrow from the reading and writing field and other disciplines. They are used to gather information about learner interests, needs, abilities, and progress. The resulting information is often stored in a "portfolio" for each participant. These tools are used continually through the learning cycle: prior to and in the early stages of instruction, regularly through the course of instruction, and at the end of the cycle.

Shown below is a process for using these new forms of individual assessment to clarify the "readiness" of individuals to participate in the education, training, and other organizational change activities you identified in the WNA.

A process for assessing individuals' interests and abilities

Let's assume that the WNA has indicated that the team should set up the following education and training activities:

- a "communications and problem-solving" course to help all workers participate actively in the company's new "quality team" work format;

- a "workplace health and safety" course to ensure a safe workplace and to comply with OSHA requirements;

- "career planning" workshops to help workers prepare for job promotions, further education and training, and/or retirement.

- a "shop math" course to help workers prepare

for technical training in SPC, blueprint reading, and welding.

You now need to know if and how individual employees might fit into those proposed basic education and technical training activities. Let's take the proposed "communications and problem-solving" course as an example. The team sees this as a way to prepare workers to use oral and written communications to identify and solve work-related problems. This course would be seen as an important part of the company's shift to team decision-making.

You need to know to what degree potential course participants already can effectively use written and oral English for collective problem-solving. You also need to know how much they feel a need to upgrade those skills. You might also want to get some specific ideas from potential participants about specific problems and skills to deal with in the course.

To give you a complete picture of the particular abilities and interests of each of your participants, you should assess each participant. However, sometimes time constraints or other factors block you from getting access to all participants prior to getting a learning activity off the ground. In such cases, you might have to collect information from only a sample of potential participants. This will give you a sense of where participants are "at" in terms of the learning activities you have in mind. Use your best judgment about how many employees you can interview and otherwise collect information from prior to the start of a learning activity. Try to get a representative sample of potential participants. Don't select only those with the highest level of skill or motivation.

You can collect information via a combination of interviews and, perhaps, simulated problem-solving activities. Shown below are examples of an interview and some simulations which might enable you to clarify learner interest and abilities vis-a-vis several areas which might be covered in a "communications and problem-solving" course:

Sample interview to assess interests and abilities

Communications

1. With whom do you currently communicate on the job?
2. Describe the kinds of communications you have with those people?
3. What do you communicate about?
4. How do you communicate? (By talking one on one? Talking in groups? In writing? Over the phone? Via computer? Via memos?)
5. What is necessary for smooth communications on the job?
6. Do you think a communications course might be of help to you?
7. If no, why not?
8. If yes, what topics might you cover in a communications course?
9. Would you like to learn how to communicate better outside the job? If yes, describe some situations where you'd like to improve your communications skills.

Problem-solving

1. What kinds of problems do you encounter on the job?
2. How do you solve those problems? (Pick one and describe how you would solve it.)
3. What makes it hard to solve problems?
4. What is necessary to solve problems?
5. Would a problem-solving course be of help to you?
6. If yes, what problems and topics would you like to focus on?
7. If no, why not?
8. Are there problems you encounter outside the job which you would like to learn how to solve? If yes, what are they?
9. Do you have any suggestions for other courses you might like to have?

Simulation related to "problem solving"

Explain to participant: Here's the situation. You have a co-worker who never listens to anything you say. You have been told that you should try to work with co-workers to solve problems, but every time you make a suggestion to this co-worker, he never seems to be interested.

You aren't sure if you aren't making yourself clear, or the co-worker just isn't interested, or if he has a problem understanding other people.

Describe how you would deal with this situation. In particular, (1) What is the problem? (2) What are its causes? (3) What steps might you take to solve it?

In the interview and simulation outlined above, you and/or perhaps another colleague will have to document the participant's responses, to provide you with clear evidence to review afterward.

In addition to assessing learner interest and abilities related to your proposed "communications and problem-solving" course, you can go through a similar process of using interviews and simulations to assess learner readiness to participate in your proposed "workplace safety and health" course, the "career planning" workshops, and the "shop math" course.

When preparing these kinds of instruments, you should consult technical trainers, supervisors, union representatives, and learners who have knowledge of particular workplace problems, terminology, and so forth. You might, as a subgroup of your planning team, establish an "assessment" committee to help you prepare instruments and review the information you collect.

Note, however, that you need to maintain the confidentiality of individual learner records. This committee might thus see only aggregate summaries of information for groups of learners rather than any one individual's results.

These ways of collecting information can help you establish trust and a spirit of "dialogue" with learners in ways which more formal "tests" usually can't. This is important not only to help you keep the program focused on relevant objectives but to help you overcome the resistance which many adult learners have to "tests." Learners, in fact, can help you design the interviews and simulations you use, to help them understand the purposes of these activities and develop data-gathering skills they can use elsewhere on or off the job.

How the resulting information is used:

As you collect information with these interviews, simulations, and other tools, carefully store the results in an individual folder for each learner. Privately go over the results (including your comments) with each learner. This will provide a baseline set of information to plan your initial round of educational activities with. This baseline can also serve as a measure against which you can monitor progress (changes in learner interests, abilities, behaviors, etc.) during the learning cycle.

You should also summarize the key findings for all the learners in an aggregate (collective) form. Summarize, for example, the range of interests and abilities represented among the learners you've assessed. You can then use this

information when preparing a strategic plan for the integrated initiative. You will, for example, have clearer categories of learning objectives for each of your proposed courses and workshops.

This summary will also give you aggregate information to present to funders, managers, trainers, supervisors, union representatives, and others likely to want a picture of where your learners are as they enter the program. (As mentioned earlier, you might establish an assessment committee on your planning team composed of trainers, supervisors, union stewards, and others who can help you not only design useful assessment activities but help you interpret the information you gather.)

Note that "aggregate" data which summarize information for a number of learners at once have the advantages of enabling you to (1) keep names of individuals "secret" and (2) identify patterns of interests and needs to build relevant learning activities around.

- Ongoing data-gathering and decision-making

Let's now assume that your team has used the information from the WNA and initial round of individual assessments to get the four activities ("communications and problem solving," "workplace safety and health," "career planning", and "shop math") underway.

You can now continue to carry out modified versions of the above interviews, simulations, and other assessment activities to monitor interests and abilities as they unfold. You might work with learners to develop these instruments, so they understand the purposes of assessment and see it as a useful tool rather than as a threat. Learners might, for example, prepare "quizzes" for themselves which assess their knowledge of content matter and/or particular transferrable competencies like finding information and writing.

You might also collect various "artifacts" which indicate learner progress. Artifacts can include samples of written work from class, the workplace, or other contexts; or learner logs in which they describe how they are using their skills, problems encountered, and questions they have. You can also keep a checklist or observation sheet for each learner in which you periodically record observations about how well learners are meeting their learning objectives.

With the learners, agree on a system for storing these "artifacts" in their respective folders. To avoid storing lots of "evidence" without making good use of it, decide with learners how they will use that stored evidence. They might on their own or in discussions with you pick out examples of their best work. Or they might choose to pay special attention to samples of a particular type of written work (e.g., workplace progress reports which they need to be able to fill out to qualify for a promotion). Learners can then transfer these examples to a "portfolio" which will serve as a record of their evolving abilities and interests. (For more details about portfolio assessment, consult the texts by Hanna Fingeret and Jane MacKillop listed under "Suggested readings" below.)

By working with learners to gather, review, and select samples of their work, you will help them pay greater attention to -- and take greater responsibility for -- their own learning. This helps build the kind of "learning ethic" necessary for high-performance learning organizations.

As instructor, you can also use this process as a systematic means for continuously improving your teaching by identifying emerging learning needs and tailoring instruction accordingly. This differs from more common over-reliance on tests which too often produce information which is abstract and intimidating for learners and doesn't tell you much about what really motivates learners.

The resulting portfolios can also, at the end of the program cycle, serve as evidence which you can use to assess progress of individuals and of the group. These individual portfolios can be combined with feedback from supervisors, trainers, and union stewards and with other kinds of information in an end-of-cycle summative evaluation of the program. (See the Chapter 7 discussion of "evaluation.")

SPECIAL CONSIDERATIONS

By combining an upfront WNA with initial and ongoing individual assessment activities, you will create an assessment system. This system will help you (1) clarify learning-related interests and abilities to build your integrated effort around and (2) monitor how those interests and abilities are changing over the life of the initiative. Remember that a well designed, user-friendly assessment system is central to any "high performance" effort.

As you develop this assessment system, keep the following considerations in mind:

Maintain confidentiality. If you want people to participate in your initiative, you need to encourage trust. In any assessment activities in which you ask people to frankly "reveal themselves" by sharing their opinions and feelings, you need to ensure them that what they say will not be used against them. Do so by asking all involved to abide by the ground rule, "what anyone says will not be shared with others outside this group, nor will it be used against them."

Look beyond "assessing individuals." Get away from the "schoolish" concept of assessment as "testing individuals." Redefine "assessment" as a positive tool for identifying learning objectives and tracking progress. Understand that a workplace development initiative requires change by both individuals and the organization as a whole. Assessment should therefore examine needs and changes in not just individuals but the larger organization, as well.

Look beyond current jobs to future learning needs. Don't define your initiative's goals narrowly as "fine tuning employees' abilities to handle current job demands." Think in the longer-term and set up your initiative to help employees to develop an interest in ongoing self-development, and the skills and knowledge they will need to evolve and improve with the organization. Your assessment activities should thus look at

BEST COPY AVAILABLE

those broader and longer-term goals rather than only short-term, narrow ones.

Don't view "improved job performance" and "personal development" as contradictory goals. Evaluations of workplace education efforts show that most stakeholders hope that learners will use their learning to improve not only their job performance but their lives outside the job, as well. The "learning organization" concept encourages all participants in an organization to reorient themselves to ongoing learning and continuous improvement of themselves and the organization they work in. By encouraging constant use of competencies in many contexts, the mastery of those competencies is speeded up. In this new approach to workplace learning, the traditional wall between "learning for the job" and learning for life" is broken down. A WNA and individual assessment can encourage stakeholder interest in learning by getting them to think of the broad range of learning objectives they might aim for.

Decide how "precise" you need to be. Realize that it is often not feasible or necessary to come up with precise measures of impact for a complex undertaking like a workplace development initiative. Understand that, in many cases, "rough carpentry" (quickly gathered, but not finely measured information) is adequate evidence to make day-to-day decisions with.

Involve learners and other stakeholders in the assessment process. Use your planning team to carry out your assessment, evaluation, and other planning activities. This would ensure that all stakeholder groups – including learners – see assessment as a useful tool rather than an imposition.

Be unobtrusive. Don't overwhelm your information sources and team members with complex, time-consuming, distracting demands on their time. They will likely quickly grow tired of assessment and resent the initiative. Instead, create "seamless" assessment activities built into day-to-day activities already carried out by participants and other stakeholders.

Use "triangulation." "Triangulation" is a fancy way of saying, "Don't put all your eggs in one basket." That is, don't rely only on one source of information (e.g., what the teacher or participants or supervisors say) or one way of gathering information (e.g., a questionnaire or a focus group). Remember that each source and procedure for collecting information has strengths and limitations. Mix it up so you can get input from a range of sources in different ways. Compare what the various sources say, to get a balanced picture.

Consider both "numbers" and "narrative" information. You might try to organize your assessment activities so you will walk away with a mix of "numbers" (quantified data) and information in "narrative" form ("stories, anecdotes"). Both formats have advantages and disadvantages. The "numbers" can be statistically analyzed over time, but tend not to capture the "feel" or nuances of what is going on in an initiative. Narrative information can capture those nuances but be hard to boil down into key, manageable findings.

Reconsider "subjectivity" and "objectivity." Don't assume that "feedback from individuals is subjective and inherently questionable," while "numbers (e.g., test scores) don't lie." Understand that while what a person says can be limited by "subjectivity" (i.e., bias and limited understanding), a "test" can likewise be limited if not constructed properly. Control for bias by asking the same questions of many different sources.

Tie assessment in with evaluation and other planning activities. Remember that assessment is only useful if someone uses it. Feed the information which your assessment activities provide about needs and progress into your strategic planning, curriculum development, evaluation, and other planning activities.

SELF REVIEW

Now use the following questions to consider whether and how you might apply the above information to your own work:

1. In the organization(s) you will work with, how open will stakeholders be to assessing not only individual needs but using a WNA to analyze the needs of the larger organization?

2. How comfortable do you personally feel with the above-described approaches to organizational and individual assessment?

3. What do you need to do to prepare yourself to carry out effective assessment?

CHAPTER 6: CREATING MULTIPLE LEARNING OPPORTUNITIES

Curriculum should be viewed not as "a set of workbooks" but as a process. In that process, educators, learners, and other stakeholders continually (1) identify learning objectives, and (2) plan, implement, refine, and expand on a variety of activities to meet those objectives.

You start by identifying broad goals for your various learning activities. You then get down to lesson planning for specific learning modules. Each plan focuses on more specific learning objectives and outlines activities and resources to meet those objectives.

A two phase curriculum model is presented as an example of a web of mutually supportive workplace learning opportunities. Phase 1 is an introductory "Team Learning Course" in which learners and facilitators get introduced to each other, to a team learning process, and to particular learning objectives which they can pursue in more depth later. Phase 2 is a series of follow-up activities which range from formal to less formal education and training sessions to restructuring of various aspects of the workplace to encourage learners to transfer what they learn in the classroom back to the organizational context.

SELF STUDY

To prepare yourself for this discussion of curriculum, jot down answers to these questions:

1. What does the term "curriculum" mean to you?

2. What forms of curriculum have you used in workplace education programs?

3. What process was used to select and/or develop those curricula?

4. Which curricula have you found most useful? Why?

5. Which curricula would you avoid using again? Why?

6. What would a more ideal curriculum and curriculum development process look like?

CURRICULUM DEFINED

Chapter 1 showed how the role of workplace basic skills education has evolved from ABE/GED in the workplace to job-specific instruction to a focus on a broader array of competencies which are transferrable to many situations which workers encounter.

With that evolution have come new definitions for the term curriculum. In the ABE/GED approach, curriculum tended to

be seen as pre-packaged, off-the-shelf textbooks typically used in ABE/GED classrooms. These texts often taught skills out of any meaningful context. Those that did try to be contextualized in some way could not be focused on the actual contexts learners faced on and off the job because of their prepackaged nature

The second wave of curricula were the job-specific variety. These were an attempt to gear instruction to enable learners to perform specific tasks they faced on the job. In this case, curriculum tended to be more customized, weaving actual workplace thinking and communication tasks and work-related written materials into instruction. In some cases, the lesson plans and teaching materials used in these job-specific programs were assembled into curriculum packages adaptable by other practitioners.

More recently, a more process-oriented definition of curriculum has crept into workplace education from the reading and writing field, adult education, and related disciplines. This process-oriented definition might be phrased as follows:

> *Curriculum should be viewed not as a set of workbooks but as the process through which educators, learners, and other stakeholders continually (1) identify learning objectives, and (2) plan, implement, refine, and expand on a variety of activities to meet those objectives.*

Such a perspective on curriculum is particularly relevant for workplace programs trying to operate in a high performance workplace because it borrows from the TQM planning process of identifying customer needs, gearing work processes to meet those needs, and continually monitoring and refining those processes.

This perspective is also pertinent for an integrated approach to workplace education and change because it shifts the focus of attention away from "running a literacy class" to the creation of multiple learning opportunities. These learning opportunities might include not only traditional "classes" but other activities which enable learners to develop and practice the competencies they need. These "non-classroom" activities might include on-the-job mentoring, restructuring of work processes and editing of work-related documents to make them more accessible to all workers, and training of supervisors and trainers to enable them to encourage all employees to use their existing knowledge.

This broader view of curriculum is also in keeping with the "learning organization" concept because it positions learning as an ongoing, pervasive, core function of the organization, rather than a series of occasional stand-alone classes.

This view of curriculum pushes planners of education, training, and related activities to figure out what mix of activities will enable all workers to participate actively in the continuous improvement of the organization. For creative planners, this is at once exciting and intimidating. Where does one start to get a handle on this and to reorient all

employees to a new way of integrating workplace learning and change?

In the latter 1980s, a number of workplace literacy manuals were issued which suggested steps for creating curricula which were largely of the job-specific type described above. Elsewhere in the adult literacy field, practitioners have been developing curriculum development approaches with can be characterized as participatory in nature, with learners given active roles in shaping objectives and learning activities.

This chapter is not a recreation of those previous guides on curriculum development. Instead, it is an attempt to help those responsible for planning workplace learning activities to create a system of integrated learning opportunities. These opportunities are to meet a number of learning objectives for the organization and individual workers.

The rest of the chapter is divided into two parts. It begins with a discussion of the why's and how's of setting clear, meaningful learning objectives. It then outlines a two-phase process of planning and implementing a series of integrated learning activities. This model draws on recent field work and is presented as a working model which others might learn from and adapt.

SETTING CLEAR AND MEANINGFUL LEARNING OBJECTIVES

Adult educators should know the value of setting clear objectives to guide their work with learners. How successfully we actually do this depends on the training, experience, and perspective we have, how much time is available to us, and whether the learners, funders, and others we work with are on the same wave length with us about what objectives to focus on and how to decide those objectives.

Adult educators are often faced with a situation which doesn't support investment in setting of meaningful objectives. Often the learners we work with don't understand the value of taking the time to negotiate objectives; they instead just want to get on with the program and "be taught." Funders also often push us to aim at increasing learners' grade-level scores or standardized tests rather than to work with learners to set learning goals which are more meaningful to them and the organization.

Experience in adult education settings -- in workplaces and elsewhere -- indicates that a process which continually involves learners, instructors, and other key stakeholders in setting clear, meaningful learning objectives can:

- Ensure that learning activities are "on target";
- Increase stakeholder understanding, buy-in, and support vis-a-vis those learning activities;
- Provide evaluation criteria against which program success can be measured.

Workplaces adopting a continuous quality improvement (TQM) approach to management should understand the

value of taking the time to set clear learning objectives. If we apply this perspective to our workplace education and training efforts, we should place a heavy emphasis on understanding our "customers" (stakeholders) needs and gear our learning activities to meeting those needs.

In fact, that is what the needs assessment process presented in the previous chapter attempts to do: clarify the needs of the organization and individuals and map out a range of possible activities to meet those needs.

Let's assume that your planning team has gone through that needs assessment and strategic planning process and agreed that the initiative will conduct four learning activities in the coming months:

- a "communications and problem-solving" course to help all workers participate actively in the company's new "quality team" work format;
- a "workplace health and safety" course to ensure a safe workplace and to comply with OSHA requirements;
- a "shop math" course to help workers prepare for training in SPC, blueprint reading, and welding.

In your WNA and initial individual assessment activities, learners and other stakeholders will have given you input about the content and format of those learning activities. They will also have shown you what interests, prior knowledge, abilities, and needs learners would bring to those activities.

With this information in hand, you can now get down to more detailed planning for each activity. For each activity (e.g., course, workshop series, etc., you can go through a process to:

- Map out goals for each "module" (session);
- For each module, prepare lesson plans which identify...

  –more-specific learning objectives;
  – specific learning activities to meet those objectives;
  – any resources (materials and/or persons) required.

While it is important to try to have broad goals for the various modules mapped out in advance as well as a good number of specific lesson plans to get the course/workshops started, it is important not to be too rigid and set objectives in concrete prior to starting the learning activities. While it might be comforting to feel as though you know exactly what you are going to be doing in the course ahead of time, be careful. You are in danger of violating the principle of "continuous improvement" if you aren't willing to alter your objectives and activities in light of evidence which emerges once the learning activity gets underway.

A true "continuous improvement" approach requires you to be in continuous dialogue with your "customers," continually asking them "how are we doing?" and being open to

new needs and suggestions for how to make the activities more relevant and efficient. Note that these concepts of "continuous improvement" and "serving customer needs" should sound familiar to adult educators who advocate a learner-centered, participatory approach to adult learning.

This curriculum model is thus an "integration" of concepts and practices from two sources: the "continuous improvement" approach to organizational development and the participatory approach to contextualized adult basic education. As such, it provides a process and language which both adult educators and workplace change agents can feel comfortable with.

HOW TO DEVELOP MULTIPLE LEARNING OPPORTUNITIES

Outlined below is a two-phase process of planning and implementing a series of integrated learning activities. They are "integrated" in several ways:

- They weave ("merge") practice in key workplace competencies in with developing knowledge of particular content areas deemed important by stakeholders;
- The initial phase of learning activities (the introductory "Team Learning Course") feeds into subsequent learning activities by providing a forum in which stakeholders can identify what kinds of learning activities to focus on next.
- They are a direct outgrowth of the needs assessment activities which precede them.
- They provide opportunities for technical trainers and other resource persons to work as co-facilitators with basic skills instructors.

The following two-phased approach allows learners and other stakeholders to first "get their feet wet" and to get accustomed to the notion of "team learning" via an introductory course. In such a course, participants could try out many of the topics you want to cover in more depth in subsequent learning activities. They would get accustomed to learning in a group and help your team identify how to make subsequent learning activities relevant to learners' particular interests, knowledge, and abilities.

In the following description of the two-phase process, we will continue to use the topics of "communications and problem-solving," "workplace health and safety," and "shop math" which we identified in our hypothetical needs assessment activities. In "real life," however, you would of course weave in topics and learning activities which you identified in your own needs assessments. Consider this process not as something to be rigidly adopted but as one example of how to merge a number of mutually-supportive learning activities together in an integrated learning system.

Phase 1:Introductory "Team Learning" Course

In this first phase, you plan, implement and evaluate an introductory course. Fo

BEST COPY AVAILABLE

the purposes of this discussion, we will call it the "Team Learning Course," but you can name it whatever you want. This course would aim at a number of goals:

- enable you as educator to get to know the learners, clarify their interests and abilities, and identify what to focus on in subsequent learning activities. (This is an example of "seamless" assessment-- assessment integrated into learning activities.)

- enable participating employees to...

– practice key workplace competencies they need to participate actively in the organization, while better understanding the organization, improving their ability to analyze and improve jobs (with particular emphasis on health and safety-related issues), and planning for future challenges they will face.

– practice learning and making decisions as a team.

- help the company shift to a learning organization model.

Here are steps for putting together this introductory course:

1. Identify learning objectives.

With your education planning team, review the range of learning-related activities you identified in your needs assessment. Typically an integrated education/training/change initiative has a mix of objectives which include:

- **Understanding the organization**: Helping employees understand the "big picture" of the organization (i.e., its mission, structure, functions, policies) and where they fit into it;

- **Analyzing jobs:**

Helping employees to be able to analyze and improve particular jobs;

- **Preparing for the future:**

Helping employees to prepare themselves for future changes/challenges they will face.

This framework would allow you to introduce learners to the topics of "communications and problem-solving," "workplace health and safety," and "shop math" you identified in your needs assessment. They – and you – would then be better prepared to tackle those topics in more depth in subsequent learning activities.

To make best use of the time available for instruction, it is important to have a clear set of learning objectives and interesting, stimulating activities and resources in place prior to the beginning of instruction. It is also important, however, not to approach planning in a rigid way, assuming that you can plan everything out in detail ahead of time. Learner interests, schedules, etc. will change over the life of the program, and you must be prepared to adapt and change your plans accordingly.

As a way of balancing the need to be well prepared with the need to be flexible and responsive to emerging needs and

conditions, we suggest that you prepare a curriculum for the introductory course which begins with discussions of topics you are already familiar with and gradually moves to ones which emerge over the life of the course. Shown below is a framework of activities for a course which meets approximately twice a week (two hours per session) for ten weeks. (You can adapt this framework to suit the time, interests, etc. represented in your site.)

2. Develop lesson plans.

Using the three categories (e.g., understanding the organization, analyzing jobs, and preparing the future) as a framework and referring to your strategic plan, brainstorm with your team a number of topics which might fit into those three categories. Organize those topics into a series of learning modules to be covered over a given time period.

For each module, develop a detailed lesson plan in which you map out specific learning objectives, time requirements, materials needed, resource persons, and a step-by-step series of activities which learners and facilitators should go through to meet the learning objectives.

As you do so, rethink what kind of contest we are trying to prepare employees for. (That is, we are now being asked to prepare people to carry out a number of workplace roles, not just rotely follow orders and do the same task over and over.) And rethink the process we use for developing meaningful curricula. (That is, don't use a t"top-down" approach in which you as expert figure out what learners need in advance and the "teach" it to them; instead involve all stakeholders in a collaborative process of planning and carrying out learning activities, putting them in the role of defining what they need to know and then helping them figure out how to learn it.

Consider how you can structure the groups as "learning teams" which emphasize active learner involvement in setting goals, peer-instruction, research, and monitoring of progress. Such a structure mimics the team-learning process which employees need to use in self-directed work teams and other high performance workplace contexts.

Consider building each module around a question, problem, or issue culled from your WNA and individual needs assessments. When a workplace problem is the topic at hand, structure activities not as "lectures" in which you spoon-feed the issue and solutions to learners. Instead, create activities which challenge learners to analyze the problem and potential solutions.

Learning activities are built around a series of questions which learners use various SCANS competencies to develop answers to.

3. Prepare learning materials.

The above kind of course is customized to particular issues unique to your organization. It also is structured to elicit active input from learners and other stakeholders.

You will likely have to draw on materials taken from that workplace (e.g., annual reports, job descriptions, training

documents) or create your own materials which present information relevant to your particular context. Note that this course encourages learners to go out and compile information and then create action plans which summarize what they've learned and their own views. These learner-generated materials can be more valuable than any prepackaged annual report.

4. Prepare facilitators and resource persons.

An important feature of an effective curriculum is the people who will facilitate the learning process. The above curriculum is a challenging one and requires facilitators with particular values and skills. (See Chapter 2).

Even the best facilitator is unlikely to have a full grasp of all the content areas which might be covered in an integrated curriculum. Consider bringing in resource persons (such as supervisors or team leaders, union stewards, technical trainers) to help you shape and carry out relevant learning activities. Note that these content area specialists might be unfamiliar with how to "facilitate learning" rather than "lecture students." Figure out what preparations (training-of-training workshops, handouts) they might need and perhaps team them with facilitators with whom they can "team teach."

5. Implement the introductory course.

Once you have done the above preparations, conduct the introductory course as planned. Add new topics and revise activities as you go along and as you get input from learners and other stakeholders. Keep the planning team informed and invite their support.

6. Evaluate the introductory course.

With the team, continually monitor learner needs and interests as the course proceeds and make changes as needed. Emphasize your desire for "continuous improvement" and the fact that this introductory course is a stepping stone to further learning activities. At the end of the course, conduct an end-of-cycle evaluation to summarize what you've learned and to inform future planning. The following chapter discusses evaluation in more depth.

Phase 2: Opportunities for ongoing learning

This above introductory course will not be the final answer to participants' learning needs. They will need other supports simultaneous with the introductory course and after the course is completed. These "supports" include not only formal and informal education and training activities, but restructuring of the contexts in which learners operate to enable them to use what they are learning "in class."

For example, your education/training/change initiative might also include:

"Special focus" courses or workshops:

Recall that the introductory course was designed to introduce learners to a number of subject areas and competencies which might be covered in more depth later on. It is also likely that

BEST COPY AVAILABLE

in the introductory course some participants would identify additional particular needs/interests around which subsequent instruction might be organized. Examples include "shop math," "preparing for technical training," "preparing to be a group leader," "communicating electronically". In Phase 2 you can organize longer courses or shorter workshops on these specialized topics.

Individual counseling:

Learners meet with instructors to discuss their educational needs and options for meeting them.

Individual tutoring:

The instructor or others (employee volunteers) meet with participants (as individuals or in small groups) to discuss/practice particular topics/learning activities. These might take the form of lunchtime study groups.

Special interest groups/clubs:

Groups of learners sharing a common interest (e.g., computers, typing...) meet periodically with resource persons (e.g., the company or union computer specialist, someone skilled in word-processing) to go through informal learning activities/mentoring.

Clear communications activities:

A "clear writing" group (composed of communications and training department personnel, instructors, learners, etc.) reviews workplace materials (e.g., forms, memos, instructions, warnings, etc.) and training plans and revises them to enable all employees to use them. (Editing of workplace materials might become a classroom activity.) Supervisors, union stewards, and trainers might be given special training, to show them how to communicate clearly and encourage learners to use what they have learned in the classroom back to the job.

Publishing projects:

One or more employees with a special interest in writing serves as mentors to a group of learners to put together an employee newsletter, an anthology of learner writing (mini-biographies, poems), or an employee electronic bulletin board.

Brown bag lunch series:

The organization hosts a series of weekly lunchtime presentations or debates on topics of interest to learners. Learners would be invited to participate as speakers and audience members. The issues covered might be woven back into classroom learning activities.

Learning resource room:

The organization creates a learning resource room which is "user-friendly" to learners. It should be stocked with popular reading (newspapers, magazines, paperbacks) and reference (dictionaries, encyclopedias), comfortably furnished and lighted, and perhaps have computers which learners can use to pursue objectives like learning how to type, writing a resume, practicing math, etc. This room would be a place where learning is valued and encouraged. All employees would be welcomed, and the

instructor might use it as a "home base" to informal interactions with learners.

Creation of incentives for learning:

Learners need to be encouraged to use what they are learning in the classroom and to recast themselves as thinking, active problem-solvers. This can be done through restructuring of jobs and training to provide workers with opportunities and incentives to use what they know. This, in turn, requires the cooperation of supervisors, team leaders, and co-workers, as well as the creation of clear financial incentives for learning (e.g., tuition assistance, release time, and promotions, bonuses, and pay increases for demonstrated improvements in skill and use of those skills. Without such opportunities and incentives, "learning" is likely to be viewed by all as an academic exercise which – while nice in many ways – doesn't put bread on the table.

The above ongoing learning opportunities are means of really integrating learning activities into the larger organization's day-to-day operations. By combining the introductory course with these "curriculum" which changes both individuals and the larger organization.

This integration of miscellaneous learning activities is not easy. Keeping all these balls in the air requires the planning team, learners, and other stakeholders to do a number of things simultaneously. You need to:

- Carefully plan, implement, and monitor each of these activities. Individual members of the team must carefully map out objectives, steps, logistics, and assessment mechanisms for each activity, as they did with the planning of the introductory course in Phase 1.

- Coordinate the activities to prevent confusion, unnecessary redundancy, or simply overwhelming learners and other stakeholders with too much "learning." It is important for the team to be clear which courses/activities it will offer and how they relate to each other, so that learners see a natural progression ("path") which will keep them interested and involved in learning over an extended period. This will give learners more "time on task" to really build and sustain their skills while giving the organization a real chance to move to a learning organization model.

If you do it right, you will help individuals develop their abilities in several ways and to ensure that the organization supports the transfer of what it learned back to "reality."

SELF REVIEW

Now that you've read the discussion of an integrated curriculum model, consider:

1. Would the above model be feasible and desirable in the workplace(s) in which you will work?

2. If you wanted to pursue this model, how would you adapt it?

– What topics/objectives would it likely focus on?
– Who would participate as learners?
– Who might serve as facilitators and resource persons?

3. To create a more integrated curriculum, what steps will you have to take?

CHAPTER 7: EVALUATION FOR CONTINUOUS IMPROVEMENT

In workplace education settings, evaluation is often thought of as a report done by an external expert for someone else. Workplace educators might be accustomed to thinking of evaluation as something cumbersome ("paperwork"), intimidating ("to please the funder"), and irrelevant ("tests which don't really tell me what I need to know to meet my objectives").

Recently workplace educators have been creating new forms of evaluation which attempt to be both user-friendly and meaningful to stakeholders, using terms and procedures familiar to those involved. These approaches intentionally involve stakeholders in clarifying goals, monitoring progress, and refining program operations.

A systematic approach to evaluation requires extra work but should be seen as central to any workplace development initiative that is guided by the spirit of "continuous improvement."

SELF STUDY

To prepare yourself for the following discussion of what evaluation might mean in an integrated initiative, please jot down answers to the following questions:

1. What was/were the purpose(s) of those evaluation activities?

2. Who was involved in your evaluation activities? What were their roles?

3. What activities have fallen under the heading of "evaluation"?

4. What did you find useful about those evaluation activities?

5. What problems did you encounter trying to do evaluation?

HOW DOES EVALUATION DIFFER/ OVERLAP WITH ASSESSMENT?

The terms assessment and evaluation are often used interchangeably. In this guide, however, we make the following distinctions.

Assessment activities are the procedures used to identify the evolving interests and abilities of both the organization and individual employees. Upfront (initial) assessment thus can provide a groundwork for planning of program operations. Assessment data can also serve as a baseline for evaluation purposes.

Ongoing assessment of changes in those interests and abilities provides information which program planners can then weigh, judge or value. Planners can use this information to decide what is being achieved and whether and how to continue the initiative. These functions of

using information to "value" and make decisions about the program are what constitutes evaluation.

By these definitions,

- **Assessment** focuses on the organization and individual employees. It documents their evolving interests and abilities.

- **Evaluation** focuses on the program or initiataive. It looks at the training process and uses assessment information to measure program impact.

Thus, in a workplace development initiative, evaluation is an ongoing process of...

1. clarifying the initiative's goals (what do the stakeholders want it to achieve), and

2. gathering and analyzing information to enable stakeholders to...

- determine what is being achieved,

- decide whether to continue the initiative and, if so,

- how to improve it.

This way of viewing evaluation is consistent with the values and procedures of high performance learning organizations, where evaluation is central to ensuring that operations are continuously improved to meet customer needs.

WHAT ARE PROMISING APPROACHES TO EVALUATION?

Traditionally, grant and contract funded programs such as workplace literacy and customized training initiatives have either used an external evaluator or their own staff to conduct evaluation. Recently however, workplace educators in the U.S. and Canada have developed ***team evaluation models*** which involve the various stakeholders. Typically, the evaluation team members are those serving on the program's planning team which also helps with the needs assessment and the curriculum development. In this way, evaluation is seen as an integral part of the organizational development effort rather than as a distracting obligation.

As illustrated in the Haartz case study, the evaluation team can: help determine the scope of the evaluation (what do people want to know), decide the success indicators, pilot test the instruments, collect the data and help disseminate the findings. Their involvement in the design phase can reduce the anxiety about evaluation resulting in greater participation by others. More importantly, having representatives from all levels of the organization ensures support for any needed changes that may be recommended to improve the training initiative.

Case Study

Haartz Corporation set up a team to evaluate the basic education program it operated at its 250 employee plant in Action, Massachusetts. The dozen team members included: the company president, plant manager, quality control specialist, two supervisors, three program participants, three representatives of the outside education agency, and an outside evaluator. About half of those members participated in all of the team activities, and the other half participated as their schedules allowed.

Members used a pre/post questionnaire in which learners monitored changes in their uses of communication skills. Learners also participated in a focus group and completed a "math mid-course critique" questionnaire. The program coordinator kept a program log to document anecdotes capturing issues, problems, ideas, and successes which emerged in the program. This log was made available to other planning team members. Team members also developed standards for the various components of their program and used these standards to monitor whether the program was meeting these standards and, if not, what actions were needed to enable it to do so. (Source: Sperazi and Jurmo, 1994)

The focus of most federal and state-financed workplace retraining is economic development. Therefore, successful programs are expected to improve both the marketability of the individual and the business performance of the company. That is why workplace education programs are starting to ***link evaluation to company performance***. In these companies educators have been able to correlate the results of training with direct benefits to the organization. (See Magnavox Case Study.)

However, keep in mind that it may be difficult to isolate the effects of training on company performance since many external factors affect productivity and sales including: working conditions, management practices, rapid changes in a company's markets or overall economic conditions.

Case Study

Magnavox Electronic Systems Company is a mid-sized high-tech manufacturer in Torrance, California. It designed a training program to address the basic skills needs of its predominately immigrant workforce in order to improve the quality of production and reduce costs. Its training partner, El Camino Community College, provided customized ESL, math and literacy instruction.

Testing showed that employees not only increased their reading and math skills but also their efficiency ratings. Before training, the average monthly efficiency of students was 18 percent of ideal for their positions. In the four months since the program started, the average efficiency rose to 26 percent, a 45% increase in employee efficiency that could be directly attributed to the training program.

Additionally, the company evaluated results in productivity. Scrap and rework rates declined dramatically during the course of the workplace training. The company saved $262,000 on scrap costs over the prior year, a 35% reduction. It saved $74,000 on rework costs, a 25% decline. The company estimated that the results directly attributable to the training translated into a dollar benefit of $2,300 a month.
(Source: Training and Development, 1992)

While quantitative data is useful for documenting program outcomes, workplace educators are turning to more qualitative information to guide their evaluation of the training process. Some workplace education programs are

adapting the concepts of individual portfolio assessment from education, progress reports from business, and case study research from the social sciences, to create a new evaluation tool referred to as "***program portfolios***." Through the life of the education program, team members collect pieces of evidence of program progress and needs. This might include minutes from team meetings, aggregate summaries of information stored in individual learner portfolios, sample reports or other documents produced by learners, and a program "log" in which team members record anecdotes and other evidence of program impact.

The planning team periodically reviews the contents of this program portfolio, selects evidence which it wants to share with other audiences, analyzes that information, and attaches to the evidence an explanation of what that evidence represents and the team's interpretation of it. The resulting summary and analysis of evidence can then be given to appropriate audiences for consideration and follow-up action.

DESIGNING AN EVALUATION PLAN

Most workplace training/retraining programs share a common mission -- to improve the nation's workforce so that employees and companies can be more competitive. Yet each program uses a distinct approach to meeting the particular needs of a company. To capture the uniqueness of each situation, evaluation efforts should be tailored to the company and its workplace training program/initiative.

You should plan your evaluation activities at the beginning of your program. This will allow you to do ***formative evaluation***, the ongoing monitoring of progress and quality. The feedback promotes a "dynamic" program increasing the likelihood that your training will be successful.

Summative evaluation provides a cumulative snapshot of what the program has achieved. This data can inform funding agencies, business partners and other program developers. To measure long term impact on job performance and future training, good evaluation continues for at least 90 days after initial training has been completed.

Following are some steps you and your evaluation team might take to build a unique evaluation approach that is responsive to the needs of your stakeholders.

■ Delegate evaluation responsibilities

A good evaluation requires a commitment of time by one or more people willing and able to do the leg work of designing the details of information-gathering activities, going out and collecting information, recording it, analyzing it, and so forth. Decide which team members will do this work, and which will play other roles as sources of information and "audience" for your evaluation report. For those who are to take more active roles, have them

"do some homework" by reading and consulting with the sources you used in your own preparations. Take the time to talk with them about any questions they might have. Review with them the "special considerations" at the end of Chapter 5.

Decide whether you need to bring in others with special evaluation expertise. You might conclude that you don't have the time or the expertise you need to conduct an evaluation on your own. You might want someone else who can bring in new ideas and sample instruments from other workplace programs.

Keep in mind that this person need not take on the traditional role of "outside evaluator" who essentially controls the evaluation's content and process. Instead, this person might be asked to become a member of your planning team. In that role, she or he can serve as a facilitator of a process in which team members are actively involved in designing and carrying out the evaluation.

- **Determine parameters of evaluation**

Ask your planning team to decide what kind of evaluation might be appropriate for your situation. To do so, clarify "who wants what information for what purposes". That is, for whom are you preparing an evaluation? What do those audiences want to know about the various goals and activities of the initiative? Why do they want that information?

Although your funding agency may be the only one requiring an evaluation, answering other stakeholders questions will help develop understanding and support for your program. Evaluation also gives them the information they need to decide whether to continue investing in the training and how to improve it.

The Parameters of Evaluation Chart illustrates the kind of responses a team might come up with. By going through a similar exercise with your team, you can help members understand the potential purposes, focal points, and benefits of the evaluation. Because of time limitations, you may have to select the questions they feel are most important to answer.

Next, clarify the success indicators for your initiative's goals. To know what the initiative is achieving in terms of outcomes, you need to know what kind of evidence, proof, or clues to look for. What evidence, for example, would you look for to know if your initiative is meeting the goal of helping learners to prepare for SPC training? You might consider:

- test results showing learners can perform the necessary math competencies required for SPC, or
- surveys of the technical trainer and the learners indicating satisfactory performance in the SPC class.

Often, the outcomes are measured in terms of learner gains as well as impact on job performance and the company.

PARAMETERS OF EVALUATION

Who	What Information	For what purpose
Learners	"How am I doing?" (How do instructors feel I'm doing?) Where should I go next in terms of training and education?	To demonstrate ability and effort to the company and others. To plan for future career and personal development.
Management	What impact did the training have on the employees and the company? Was training coordinated with other O.D. and training efforts? Is this initiative helping the company meet its strategic goals ? What was the return on the investment?	To evaluate the training provider. To determine the relationship of basic skills to other company activities? To clarify whether and how to continue supporting the initiative. To determine the cost effectiveness.
Basic skills staff	Have the learners acquired new skills, knowledge or personal qualities? Was the training "on target"– responsive to company needs and appropriate to learners? (Do learning activities need to be revised?) What topics/ objectives should future basic skills related activities focus on?	To demonstrate program's success to stakeholders. To identify areas for program improvement. To have evidence to show to funders in future funding proposals.
Technical trainers	Have employees mastered the basic skills needed for technical training? Have technical information or materials been incorporated into the basic skills training?	Tc determine employee's readiness. To gear technical training to abilities and needs of learners. To identify areas for program improvement.
Union representatives	Is this program helping learners to achieve job security, promotional opportunities, and other personal goals? Is this program helping learners be more involved in union affairs?	To clarify whether and how to continue supporting the initiative.
Outside funders	Did the program meet its objectives? Has the program helped the learners and the company become more competitive?	To evaluate the grantee's performance. To clarify whether and how to continue supporting the initiative.

BEST COPY AVAILABLE

- **Develop data collection methods**

For the questions you've chosen to give highest priority to, decide how and where you might get the information. Typically you'll want activities which help you clarify (1) what the initiative is achieving (its impact) and (2) how it might be improved. The Outcome Evaluation Chart shows possible data sources and information-gathering activities you might use to measure impact.

For program improvement purposes, you'll probably want to get some feedback on how well the various components are working. The Process Evaluation Chart identifies characteristics of effective, integrated workplace education that you can use to ascertain your program's strengths and weaknesses. It also provides you with sample strategies to collect your feedback.

Use these kinds of grids to decide which sources to go to for the data you want, as well as the means you will use to get that information. Before creating new instruments, review assessment activities you've already been using and existing company data sources. To identify additional information-gathering activities, refer to Chapter 5 and the references cited under "Suggested Readings".

Remember to use multiple evaluation strategies and sources so that both qualitative and quantitative data are collected. To corroborate the findings, you should collect data from various key players – management, supervisors, participants, and program staff.

Designing information-gathering activities is not easy. You should also give the tools a trial run within your planning team to iron out any snags and ensure that those who will use the tools can do so smoothly. This will ensure that the tools are clearly worded, non threatening and get at important information you might not have thought of yourself.

Lastly, decide when the evaluation activities will take place. Some activities such as learner assessment of skills should be done on an ongoing basis as part of instruction. On the other hand, a review of workforce data to determine impact on job performance may only need to be done as a pre/ post training activity.

- **Disseminate Evaluation Results**

Closing the loop in the evaluation process is essential. This means sharing evaluation results with all the stakeholders - participants, supervisors, management, project staff and funding agencies. Feedback of this type promotes a "training culture" within companies and in the community at large.

Disseminating your results in business related publications is also a useful marketing tool. Evaluation reports usually contain four sections:

- a description of the company and the program,
- the methodology used,
- results of the data collected, and
- recommendations for program improvement and institution-alization.

BEST COPY AVAILABLE

OUTCOME EVALUATION

Purpose	Data Collected	Sample Strategies
Measure impact on learner	**Learning Gains:** Job specific global/general **Affective Changes:** Self-esteem Motivation Independence **Further training:** enrollment/retention performance completion rates **Marketability:** retention rate earnings promotions	Standardized tests Teacher-developed tests Competency checklists Certificates awarded (GED) Portfolios Self appraisal Supervisor's appraisal Co-worker feedback Student follow-up survey Review of training records Voc. Teacher's appraisal Review of employment records Self reporting
Measure impact on job performance	**Workforce data:** output per employee absenteeism rate turnover rate accidents/injuries **Employee relations:** increased communication reduced supervision	Review of personnel records Supervisor survey Dept./unit work records Performance appraisals Employee survey
Measure impact on company performance	**Customer relations:** complaints satisfaction new customers **Production:** quality of output quantity of output time on delivery **Company cost savings**	Management survey Customer survey Company records: return rate rework/scrap percent variance reports Return on investment*

*Note: Divided savings by training cost and multiply by 100.

PROCESS EVALUATION

Program Area	Effectiveness Criteria	Strategies
Planning	Participatory (All stakeholders) Measurable goals & training objectives Training tied to strategic plan Management & labor support Based on comprehensive needs assessment Evaluation used for program improvement	Minutes of advisory meetings Staff interviews Company interviews Proposal review Review of data collected Log of program changes
Curriculum	Responsive to company and individual needs Related to critical job tasks Transferable skills taught Integrated with technical training	Observation Review of curriculum Written surveys
Instruction and Materials	Competency-based Contextualized Teaches for application Appropriate to learner Accessible (scheduling, facilities) Individual and group instruction Ongoing monitoring of student progress	Observation Trainee survey Interviews Review of trainee records Review of instructional materials Recruitment and retention numbers
Coordination	Ongoing communication between teachers and supervisors Shared materials among literacy and technical trainers Training sequenced Transition to other training facilitated	Staff interview Supervisor survey Technical trainer survey
Resources	Competent, trained staff Adequate facilities & equipment Available support services	Program observation Staff questionnaire Trainee survey

However, remember to keep your various audiences in mind. Present your results in ways that are tailored to each audience (e.g., executive summaries, oral presentations, informal meetings, etc.). Once your audiences have responded to your reports, follow up and make sure that agreed upon actions are carried out.

SELF REVIEW

To prepare yourself for using evaluation in the contexts you are now to work in, consider these questions:

1. What would you now consider to be characteristics of "good" evaluation?

2. How comfortable do you personally feel with the idea of organizing a team evaluation like the one described in this chapter?

3. What activities would you implement to strengthen your evaluation procedures?

4. How would you prepare yourself to more systematically build evaluation into the work you do?

Appendix A

SUGGESTED READING

Evolving Trends

Capacity Building for States Project (1993). Bridges to employment: Vocational ESL lesson planning. Cary, IL: Northern Illinois University, Office of Applied Innovations.

Capacity Building for States Project (1994). Teaching the language of employment and training. Consultations in brief, 2, 2.

Cichon, D.J., Grover, J. & Thomas, R.J. (1990). Industry-based bilingual vocational training: A review of related literature. Washington, D.C.: U.S. Department of Education, OVAE.

Chisman, F. (1992). Ahead of the curve: Basic skills programs in four exceptional firms. Washington, D.C.: The Southport Institute for Policy Analysis.

Congressional Office of Technology Assessment (1990). Worker training: Competing in the new international economy. Pittsburgh, PA: Superintendent of Documents.

Draper, J.A. (1991). Understanding values in workplace education. In Basic skills for the workforce. Toronto, Canada: Culture Concepts.

Falcone, L. (ed.) (1994). The critical link: Community colleges and the workforce. Washington, D.C.: American Association of Community Colleges.

Folinsbee, S. and Jurmo, P. (1994). Collaborative workplace development: An overview. Don Mills, ON: ABC Canada.

Friedenburg, J.E. (1991). The vocational ESL handbook. Rowley, MA: Newbury House Publishers, Inc.

Grubb, W. N., et al (1990). The cunning hand, the cultured mind: Models for integrating vocational and academic education. Berkeley, CA: National Center for Research in Vocational Education.

Imel, S. & Kerka, S. (1992). Workplace literacy: A guide to the literature and resources. Columbus, OH: Center on Education and Training for Employment, Ohio State University

Lewe, G. (in press). Basic skills in the total quality workplace: An organizational focus. Philadelphia, PA: National Center for Adult Literacy.

Proper, L. (1994). Models of excellence: A review of Ohio's award-winning workplace literacy programs. Columbus, OH: Office of Workforce Development, Ohio Bureau of Employment Services.

Sarmiento, T. & Kay, A. (1990). Worker-centered learning: A union guide to workplace literacy. Washington, D.C.: AFL-CIO Human Resources Development Institute.

Stein, S.G. & Sperazi, L. (1991). Tradition and change: The role of workplace education in the transformation of the workplace, a paper presented at the AAACE Conference in Montreal. Washington, D.C.: American Association for Adult and Continuing Education.

The Center, Workplace Education Division (n.d.) Best practices for quality basics programs in the manufacturing industry. Des Plaines, IL: Author.

U.S. Department of Education (1992). Workplace education: Voices from the field. Proceedings of the National Workplace Literacy Program Project Directors Conference on September, 1991. Washington, D.C.: Division of Adult Education and Literacy, U.S.D.E.

Training in Small Businesses

Berkeley Planning Associates (1991). Workplace education efforts in small business: Learning from the field. Washington, D.C.: Small Business Administration, Office of Advocacy.

Black, D., Berger, M., & Barron, J. (1993). Job training approaches and costs in small and large firms. Washington, DC: U.S. Department of Commerce.

Chisman, F. (1992). The missing link: Workplace education in small business. Washington, DC: The Southport Institute for Policy Analysis.

Harwood, R.C. (1989). Closing the gap: Meeting the small business training challenge in Connecticut. Cambridge, MA: Jobs for the Future.

Hollenbeck, K. & Kline, K. (1992). Workplace education programs in small business: Results from a survey of Michigan firms. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

McCrossan, L. & Garrett, C. (1992). Reading, writing and critical thinking for second level employees in small and mid-sized businesses. Allentown, PA: Adult Literacy Center of the Lehigh Valley.

Petrini, C. (1992). Four by four: Small firms think big. Training and development, 46, 9, pp. 17-26.

U.S. Small Business Administration & the U.S. Chamber of Commerce (1992). Today's small business for tomorrow: A skilled workforce. Washington, DC: Small Business Administration.

Vencill, M.P., Clausen, L.K., & Drury, D.A. (1991). Workplace education efforts in small business: Learning from the field. Washington, DC: U.S. Small Business Administration, Office of Advocacy.

Assessment

Fingeret, H.A. (1993). It belongs to me: A guide to portfolio assessment in adult education programs. Durham, NC: Literacy South.

Grover, J. G. , Seager, A. J., & deVries, D.K. (1990). Research in workplace literacy: The level of literacy required in specific occupations. Final Report. Hampton, NH: RMC Research Corporation.

Lewe, G.R. (1993). Literacy task analysis. New Westminster, British Columbia: B.C. Construction Industry Improvement Council.

Lytle, S.L. & Wolfe, M. (1989). Adult literacy education: Program evaluation and learner assessment. Columbus, OH: ERIC Clearinghouse on Adult, Career and Vocational Education.

Taylor, M.C. (1991). How to approach worker testing and assessment. In Basic skills for the workplace. Toronto: Culture Concepts.

Waugh, S. (1991). How to assess organizational needs and requirements. In Basic skills for the workplace. Toronto, Canada: Culture Concepts.

Young, C.D. (1994). Assessing workplace literacy: Asking new questions. Latham, N.Y.: Civil Service Employees Association.

Curriculum & Instruction

Broad, M. Newstrom, J. (1992). Transfer of training. Reading, MA: Addison Wesley.

Cheren, M. (ed.) (1987). Learning Management: Emerging directions to learn in the workplace. Information series N. 320. Columbus, OH: ERIC Clearinghouse on Adult, Career, and Vocational Education.

BEST COPY AVAILABLE

Cook, C & Goddey, V. (ed.) (1989). Workplace literacy: A curriculum development guide. Wilimington, MA: Altron, Inc.

Dowling, W.D. and others (1992). Workplace literacy for world class manufacturing. Final Report. Columbus, OH: College of Education, The Ohio State University.

Imel, S., Kerka, S., & Pritz, S. (1994). Using small group learning in adult basic and literacy education. Columbus, OH: Center on Education and Training for Employment.

Mager, R.F. (1992). What every manager should know about training. Belmont, CA: Lake Publishing.

Lopez-Valadez, J. & Hathaway, V. (1991). Content reading in vocational training. In Planning for student success: Inservice modules. Macomb, IL: Curriculum Publications Clearinghouse, Western Illinois University.

Pelavin Associates (1993). ABE/ESL instructor training modules: Improving thinking skills for adult learners. Washington, D.C.: U.S. Department of Education, USDE.

Sticht, T.G. (1987). Functional context education: Workshop resource notebook. San Diego, CA: Applied Behavioral and Cognitive Sciences.

U.S. Department of Education (1992). Workplace literacy: Reshaping the American workforce. Washington, D.C.: Clearinghouse of Adult Education and Literacy.

Evaluation

Creticos, P.A. & Sheets, R. (1992). Evaluating state-financed, workplace-based retraining programs: Case studies of retraining projects. Washington, D.C.: National Commission for Employment Policy and the National Governor's association.

Creticos, P.A. & Sheets, R. (1990). Evaluating state-financed, workplace-based retraining programs: A report on the feasibility of a business screening and performance outcome evaluation system. Washington, D.C.: National Commission for Employment Policy and the National Governor's Association.

Davidove, E. A. & Schroeder, P.A. (1992). Demonstrating ROI of training. Training and Development, 46, 8, pp. 70-71.

Jurmo, P. & Folinsbee, S. (1994). Collaborative evaluation: A handbook for workplace development planners. Don Mills, ON: ABC Canada.

Mikulecky, L. & Lloyd, P. (1993). The impact of workplace literacy programs: A new model for evaluating the impact of workplace literacy programs. Philadelphia, PA: National Center on Adult Literacy.

Phillippi, J.W. (1992). How Do you know it's working? Evaluating the effectiveness of workplace literacy programs. Washington, D.C.: U.S. Department of Education, OVAE.

Sticht, T.G. (1991). Evaluating national workplace literacy programs. Washington, D.C.: U.S. Department of Education, OVAE.

Sperazi, L., Jurmo, P. & Rosen, D. (1991). Participatory approaches to evaluating outcomes and designing curriculum in workplace education programs. Newton, MA: Evaluation Research.

Sperazi, L., & Jurmo, P. (1994). Team evaluation: Case studies from seven workplace education programs. East Brunswick, N.J.: Literacy Partnerships.

Sperazi, L., & Jurmo, P. (1994). Team evaluation: A guide for workplace education programs. East Brunswick, N.J.: Literacy Partnerships.

Appendix B

WORKPLACE EDUCATION HANDBOOKS

Barker, Kathryn. **A program evaluation handbook for workplace literacy**. Available free. Department of Multiculturalism & Citizenship, National Literacy Secretariat, Ottawa, Ontario, K1A 0M5, Canada. Phone (819) 953-5280.

> This handbook contains guidelines for evaluating workplace literacy programs. The publication is addressed to practitioners who are not experts in evaluation techniques. It stresses that program types and evaluation needs differ widely among programs, making it impossible to identify a universal approach to evaluation. It includes "focus questions" to help users relate the guidelines to their programs.

California Department of Education (1993). **The workplace learning provider's manual**. Available for $25.00. Bureau of Publications, Sales Unit, California Dept. of Education, PO Box 271, Sacramento, CA 95120. Phone (916) 445-1260; Fax (916) 323-0823.

> This volume provides a broad overview of the stages and activities to be undertaken to establish Workplace Learning Programs. It starts with the initial design and planning of a program, progresses through a number of stages of implementation, and ends with approaches for improving programs after they have been evaluated.

Carnevall, Gainer & Meltzer (1990). **Workplace basic training manual.** Available for $38.95. Jossey-Bass, Inc., 350 Sansome Street, San Francisco, CA 94104. Phone (415) 433-1767.

> This manual provides guidelines for planning and implementing a workplace skill program, including how to perform a task analysis, design the curriculum, do a cost-benefit analysis, and evaluate results.

Center for Educational Telecommunications (1993). **Retraining the workforce: Meeting the global challenge**. Available for $495.00. Dallas County Community College District, 9596 Walnut Street, Dallas, TX 75243-2112. Phone (214)952-0332.

> A video and print training package for developing job-linked workplace literacy with six how-to manuals including: Marketing Workplace Literacy, Identifying Critical Job Tasks, Conducting Task Analyses, Designing Training Content, Implementing Assessment and Recruitment, and Measuring Program Effectiveness.

Folinsbee, S. & Jurmo, P. (1994). **Collaborative needs assessment: A handbook for workplace development planners.** Available for $ 20.00 ABC Canada, 1450 Don Mills Rd., Don Mills, Ontario M3B 2X7

A rationale and procedures for an education planning committee to conduct a workplace needs assessment as a first step in planning of an organizational change initiative. Positions basic education as one of many possible training and organizational change initiatives an organization might undertake.

Sperazi, L. & Jurmo, P. (1994). **Team evaluation: A guide for workplace education programs.** Available for $18.00. Literacy partnerships, 14 Griffin Street, East Brunswick, NJ 08816-4806. Phone (908) 254-2237.

Shows stakeholders in workplace education programs how to plan and carry out a collaborative evaluation. Based on an 18-month project funded by the National Institute for Literacy.

Manly, D. (1991). **Workplace educational skills analysis (WESA) training guide** and **workplace educational skills analysis (WESA) training guide supplement** (1994). The Training Guide is available for $12.00, the Supplement is $14.00. Center on Education and Work, University of Wisconsin-Madison, 1025 W. Johnson Street, Room 964, Madison, WI 53705. Phone (800) 446-0399.

The workplace educational skills analysis (WESA) is a process to identify and analyze basic educational skills required to perform a job or cluster of jobs. The Training Guide covers developing workplace-specific curriculum, assessment instruments, career pathing alternatives and individualized educational plan. The WESA Training Guide Supplement includes a checklist with workplace related educational skills, support information for conducting the WESA and sample reporting formats.

Philippi, J. (1991). **Literacy at work: The workbook for program developers**. Developed by Performance Plus Learning Consultants. Available for $100.00 first book, $50.00 each additional book. Computer Curriculum Corporation, 5429 Highfield Dr., Stone Mountain, GA 30088 . Phone (404) 469-7886.

This manual provides detailed instructions for developing a workplace literacy program based on a functional context approach. The workbook includes a step by step demonstration of procedures and techniques for getting started, making plans, gathering information, designing instruction, selecting and keeping participants, and

evaluating functional context programs. Self instructional exercises are provided to master content.

Sperazi, L. (1991) **Education in the workplace: An employer's guide to planning adult basic skills programs in small business and industry in Massachusetts**. Developed for the Massachusetts Dept. of Employment Training. Available for $35.00. L. Sperazi, Evaluation Research, 130 Warren St., Newton Center, MA 02159. Phone (617) 527-6081.

A guidebook on how to assess workplace literacy needs and design a program to meet a company's needs. Includes sample case studies of literacy programs in small businesses.

Thomas, R.J., *et al.* (1991). **Job-related language training for limited English proficient employees. A handbook for program developers** and **A guide for decision makers in business and industry**. Available for $59.95. Development Assistance Corporation, 1415 11th Street, N.W. Washington, D.C. 20001. Phone (202) 234-8842.

The handbook provides direction for the development and implementation of a workplace ESL program. Discussed are establishing partnerships, removing barriers to participation, evaluation, procedures for literacy task analysis, curriculum development, instructional techniques and cross-cultural awareness training. The guide is designed to help employers plan and develop partnerships.

Westberry, S. (1990). **The BEST blueprint: Quality ABE in the workplace**. Available for $15.40. EDRS, 7420 Fullerton Rd. Suite 110, Springfield, VA 22153. Phone (800) 443-ERIC.

The handbook is a guide for developing a workplace literacy program based on the Basic Educational Skills Training Program (BEST) model developed in Columbia, Tennessee. The program provides education to multiple employers simultaneously, enables straight and swing shift works to attend training without requiring released time. The handbook includes a simple test to identify learning disabled students.

BEST COPY AVAILABLE

Appendix C

WORKPLACE LITERACY CURRICULA

The following list represents a sampling of applied, contextualized workplace literacy materials identified during the literature search phase of the project, as such, it is not all inclusive. Their inclusion is not intended to convey a recommendation.

Agency for Instructional Technology, Box A, Bloomington, IN 47402-0120. Phone (800) 457-4509. Materials available at $31.00 each:

> **APPLIED COMMUNICATION** is a competency-based curriculum which applies reading, writing, listening,speaking, and problem-solving to on-the-job situations in five major occupational areas: agriculture, business/marketing, health occupations, home economics, and technical\trade\industrial. It includes 15 multimedia modules that give the learner as well as the instructor many topics to choose from depending on their own needs: Module 1- Communicating in the workplace; Module 2- Gathering and using information; Module 3- Using problem-solving strategies; Module 4- Starting a new job; Module 5- Communicating with co-workers; Module 6- Participating in groups; Module 7- Following and giving directions; Module 8- Communicating with supervisors; Module 9- Presenting your point of view; Module 10- Communicating with clients; Module 11- Making and responding to requests; Module 12- Communicating to solve interpersonal conflict; Module 13- Evaluating performance; Module 14-Upgrading, retraining, and changing jobs; Module 15- Improving the quality of communication.

Center for the Study of Adult Literacy, Georgia State University and Grady Memorial Hospital. Available from ERIC Clearinghouse on Adult, Career & Vocational Education. Center on Education and Training for Employment, Center Publications, 1900 Kenny Road Columbus, OH 43210-1090. Phone (800) 848-4815. Material available:

> **THE HOSPITAL JOB SKILLS ENHANCEMENT PROGRAM: A WORKPLACE LITERACY PROJECT CURRICULUM MANUAL** describes the curriculum portion of the Hospital job skills enhancement program (HJSEP); this curriculum was designed to improve the literacy skills of entry-level workers in housekeeping, food service, and laundry departments. Presents a detailed description of the literacy audit and curriculum development process. Price: ED 328-666

Colorado Community College and Occupational Education System, 1391 N. Speer Blvd., Suite 600, Denver, Colorado 80202. Phone (303) 794-4584, Contact Mary Gershwin. All materials are available on a cost recovery basis:

> **LEARNING TO LEARN** is designed to enable participants to identify their own learning styles and to raise awareness of how to work with other employees who have different learning styles. Author: Janelle Diller
>
> **READING I** focuses on basic reading skills of previewing information, integrating knowledge, and recalling information in an organized fashion. Vocabulary building is also emphasized. Author: Rita Moore

BEST COPY AVAILABLE

READING II focuses on reading for specific kinds of workplace information, interpreting that information, and summarizing main ideas. Identification of relevant details, facts, and specifications are explored. Author: Rita Moore

The Conover Company, P.O. Box 155 Omro, WI 54963. Phone (800) 933-1933. Materials available:

THE INTEGRATOR: INTEGRATING BASIC SKILLS INTO THE WORKPLACE is a competency-based, applied academic program, integrating an assessment process to a comprehensive skill enhancement process. There are four modules in the series: math, communications, interpersonal skills and problem solving, each one driven by individual interests and needs. Each job-specific diagnostic targets the key competencies necessary to successfully function on the job. Utilizes computer simulations in which learners can clearly see the relationship between basic academic skills and their use in the workplace. Prices vary.

Cord Communication, P.O. Box 21206 Waco, TX 76702-1206. Phone (800) 231-3015. Contact Satyra Austin. Materials Available:

APPLIED MATHEMATICS: A CONTEXTUAL APPROACH TO INTEGRATED ALGEBRA AND GEOMETRY is a competency-based curriculum that emphasizes problem solving, decision making, and hands-on learning. As part of the curriculum this program includes scale drawings, measuring in English and metric units, graphs, charts and tables, precision, accuracy and tolerance, and many other subjects that the students will find applicable to their day-to-day jobs at the workplace. Includes a video program that will take students into the workplace and demonstrate the use of mathematics on the job. Available in Spanish. Some of the occupational areas available in this program are: business & marketing, home economics, agriculture/agribusiness, health occupations and industrial technology. Prices vary.

Finger Lakes Regional Education Center for Economic Development, 27 Lackawanna Ave., Mount Morris, NY 14510. Phone (800) 441-4540 and (716) 658-2291; Fax (716) 658-2444. Contact David Mathes. Materials available:

WORKPLACE ORAL COMMUNICATIONS. is a small group/one-on-one communications, speaking and listening skills and interpersonal communications skills. (108 pages) Price: $15.00

WORKPLACE LITERACY WRITTEN COMMUNICATIONS Modules I-IV: reading mechanics, writing effective sentences, paragraphs (400 pages). Modules V-IX: vocabulary, 5 paragraph essay, business correspondence, library research essay, reading comprehension (400 pages). Price: $32.00 each.

WORKPLACE MATHEMATICS. Modules 1 & 2: whole numbers, decimals, fractions percents, measurements, ratios, graphs and charts(233 pgs). Modules 3 & 4: algebra, geometry, trig, probability, statistics, variance, standard deviation, computers, calculus, slope (372 pages). Price: $32.00 each.

Limited English Proficient Garment Industry Workers, Chinatown Manpower Project Inc., 70 Mulberry Street, New York, NY 10013. Phone (212) 571-1690. Contact Ivy Tse.

> FROM THEORY TO PRACTICE: A SET OF GARMENT RELATED ESL. Curriculum available through ERIC, CBIS Federal, Inc., 7420 Fullerton Road, Suite 110, Springfield, Virgina 22153. Phone (800) 443-3742. (208 pages) Price: $ 36.70

New Mexico State University. Available from Eric Clearinghouse on Adult, Career & Vocational Education. Center on Education and Training for Employment, Center Publications, 1900 Kenny Road Columbus, OH 43210-1090. Phone (800) 848-4815. Materials available:

> **STEP AHEAD: A PARTNERSHIP FOR IMPROVED HEALTH CARE COMMUNICATIONS** is a series of modules designed to improve various communication skills of workers in health care settings. All are aimed at individuals with mid-level literacy skills an all use a job context approach to instruction. Modules include: The write stuff: Memos, and short reports; Communication for Supervisors; Effective presentations. Communicating in Health care settings; Straight talk. Communicating in Health care settings.

Piney Mountain Press, Inc. P.O. Box 333 Cleveland, GA 30528. Phone (800) 255-3127. Materials Available:

> **VOCATIONAL WRITING SKILLS PACK** builds writing and communications skills for students in their specific training area, and provides practical job-related writing practice. With a wide variety of vocational fields, each reproducible activity pack involves three basic writing skill competencies.: constructing paragraphs, writing complete sentences, and writing steps in performing specific occupational tasks. Price: $ 195.00 per title.
>
> **VOCATIONAL MATH PACK** is used for teaching in a vocational context. Helps develop math skills for students in their specific training area by providing a wide variety of job-related problem solving activities. Each pack provides a year's worth of instruction and reproducible worksheets that review competency areas such as addition, subtraction, multiplication, division, fractions, etc. Price: $ 295.00 per title.

Print Industry Workers, Catonsville Community College, 800 S. Rolling Rd., Baltimore, MD 21228. Phone (410) 455-4501. Contact person Laura E. Weidner, Project Director. Materials available:

> **FOUNDATION SKILLS FOR MANUFACTURING: A WORK-BASED CURRICULUM** addresses 20 Competencies identified as essential for workers in a manufacturing setting. The learning activities are based on documents and task analyses from a variety of manufacturing firms in the Baltimore area. It is designed to be used by experienced work-based education instructors in conjunction with other materials. Price: $40.00 Prepaid.
>
> **SKILLS TODAY FOR TOMORROW: A BASIC SKILLS CURRICULUM FOR THE GRAPHIC ARTS INDUSTRY** addressees 24 competencies identified as essential for industry workers. It is designed to be used by experienced workbased education

instructors in conjunction with other learning materials. Price: $15.00 Prepaid.
MATHEMATICS FOR THE TRADES: A GUIDED APPROACH Corman, R.A., and Saunders, H.M. (1986). Self paced material to teach or renew practical math in a variety of trade and technical occupations. 2nd Edition. From: John Wiley & Sons, One Wiley Dr., Somerset, NJ 08873. (582 pages) Price: $27.95.

Project STEP, The Center for workforce education, Miami-Dade Community College, Kendall Campus, 11011 S.W. 104th Street, Miami, FL 33176-3393. Phone (305) 237-2878. Contact person Regina A. Guaraldi, Director. Materials available:

PROJECT STEP UNIT ONE (Skills for Documentation) emphasizes in oral and written communication to better documentation, listening comprehension, math and vocabulary for better judgement, synthesis, evaluation and application of skills. Price: $ 65.00 includes postage.

PROJECT STEP UNIT TWO (Skills for Understanding) focuses in oral and written communication plus math, spelling, comparison and contrast, skimming and scanning, and listening comprehension for better judgement, application, evaluation and analysis. Teaches about medications and their medical side effects. Price: $ 40.00 includes postage.

PROJECT STEP UNIT THREE (Skills for nutrition and meal time) provides help with reading, vocabulary, math and writing documentation for better judgement and decision making in serving, buying and preparing food to satisfy client dietary needs within a nutritional context. Price: $ 65.00 includes postage.

THE PROJECT STEP UNIT FOUR (Skills for supported routines) emphasizes vocabulary, reading and oral communication. Price: $ 45.00 includes postage.

THE PROJECT STEP UNIT FIVE (Skills for Effective Supervision) focuses in oral communication, listening, comprehension, classification and categorization, reading, grammar, vocabulary and spelling for better application in any supervisory position. Price $ 40.00 includes postage.

Schoolcraft Publishing, A division of Telemedia, Inc., 750 Lake Cook Rd., Buffalo Grove, IL 60089. Phone (800) 837-1255. Materials Available:

SHOP MATH. VHS tapes that provide remedial instruction in basic arithmetic operations and covers the highest level of math needed in production shops. Price: $ 279.99 for the set of 3

MATHEMATICS FOR METAL FABRICATORS AND WELDERS. VHS tapes that explain the mathematics needed by professional metal fabricators and welders. Including fractions, decimals and mixed numbers, formulas, geometry, trigonometry and cost estimating. Price: $379.00 for the set of 6.

BASIC MATH FOR AUTO TECHNICIANS. VHS tapes that emphasize numbers, fractions, decimals, addition, subtraction, multiplication, division, percentages, ratios and rates. Price: $ 329.00 for the set of 4

BEST COPY AVAILABLE

BASIC DIGITAL MATH. VHS tapes that introduce digital technology as well as identifying number systems, using binary numbers, boolean algebra and its basic laws. Price: $ 399.00 for the set of 5

BASIC MATH FOR ELECTRONICS. VHS tapes that teach the powers of ten and metric prefixes, how to work with Ohm's law, series circuits and parallel circuits. Price: $ 379.00 for the set of 4.

**NOTE: Industrial tapes may be purchased separately: price varies.

Texas Community and Technical College, Workforce Education Consortium, c/o El Paso Community College, Literacy Programs, P.O. Box 20500, El Paso, TX 79998. Phone (915) 542-2745. Contact Andrea Binder. All materials are available on a printing cost only basis. Materials available:

COMMUNICATIONS FOR HVAC TECHNICIANS, Authors: Deborah Palmer, Jimmy Headstream; Angelo State University, San Angelo, Texas.

MATHEMATICS FOR HVAC TECHNICIANS, Authors: Deborah Palmer, Jimmy Headstream; Angelo State University, San Angelo, Texas.

ESL FOR RHVAC TECHNICIANS, Authors: Donna Rowland, Maxie Berrera, Roger Manning; Texas State Technical College, Sweetwater, Texas.

ESL FOR HEALTH CARE WORKERS - LEVEL 1 (beginning), Authors: Terry Shearer, Federico Salas-Isnardi; Houston Community College Without Walls, Houston, Texas.

ESL FOR HEALTH CARE WORKERS - LEVEL 2 (intermediate), Authors: Terry Shearer, Federico Salas-Isnardi, Anna Albarelli; Houston, Texas.

Workplace Education Division, The Center, 1855 Mt. Prospect Rd., 2nd Floor, DesPlaines, IL 60018. Phone (708) 803-3535 Contact Linda Mrowicki, Project Director. Materials available:

WORKPLACE LITERACY CORE CURRICULUM FOR BEGINNING ESL STUDENTS uses a competency-based approach and teaches basic oral and literacy skills for a variety of entry-level manufacturing jobs. The curriculum contains a list of competencies, instructional units and a sample assessment test. Price: $ 8.00 Prepaid.

A BASIC SKILLS CORE CURRICULUM FOR THE MANUFACTURING INDUSTRY contains a description of the project model, a core curriculum, sample lessons and a section on customized assessment. Price: $ 8.00 Prepaid.

Workplace, National Association of Printers & Lithographers (NAPL), 780 Palisade Avenue, Teaneck, NJ 07666. Phone (201) 342-0707. All materials are available from NAPL, Member: $80.00; Non-Members $105.00.

WORK-RELATED PRINT LEARNING AND CAREER ENHANCEMENT (WORKPLACE) bolsters basic skills and prepares NAPL's employees for career advancement in graphic arts and printing companies. A Manager's Sourcebook and Sample Assessment Package including Inventory and administrator's manual are also available.

WORKPLACE ON-THE-JOB MATH COMPUTATIONS focuses on mathematical operations including an introduction to statistical process control (SPC).

WORKPLACE CRITICAL THINKING AND PROBLEM-SOLVING is a program to help employees define goals and objectives, generate possible solutions and bench mark results.

WORKPLACE COMMUNICATIONS is a program that teaches reading, writing and listening skills through job related materials.

Appendix D

BIBLIOGRAPHIES OF INSTRUCTION MATERIALS

Bilingual Vocational Education Project (1990). **Bibliography of career, vocational and VESL materials for the LEP.** Curriculum Publications Clearinghouse, Western Illinois University, Horrabin Hall 46, Macomb, IL 61455. Price $ 4.50.

ERIC Clearinghouse on Adult, Career, and Vocational Education (1991). **ERIC update: Basic skills and vocational education.** Center on Education and Training for Employment, Ohio State University, 1900 Kenny Road, Columbus, OH 43210-1090. Price $ 7.00.

Lane, M.A. (1991). **Workplace Literacy: Employment and workplace materials. A guide to recent and recommended books.** Library of Philadelphia, Philadelphia, PA 19104. Price: FREE.

OTAN VESL/Workplace Clearinghouse (1995). **VESL/workplace clearinghouse catalog.** OTAN VESL/Workplace Clearinghouse, San Diego Community College District, 5350 University Avenue, San Diego, CA 92105-2296.
Price: FREE.

Workplace Education Division, The Center (n.a.). **Resource list of commercial workplace basic skills materials for the manufacturing industry.** Workplace Education Division, The Center, 1855 Mt. Prospect Road, Des Plaines, IL 60018. Price: $8.00 prepaid.

Wisconsin Literacy Resource Network (1994). **Curriculum materials: A review for workplace education programs.** Center on Education and Work, University of Wisconsin-Madison, 1025 W. Johnson Street, Room 964, Madison, WI 53706.
Price: $ 15.00.

Appendix E

CLEARINGHOUSES AND NATIONAL CENTERS

	Services Offered
Clearinghouse on Adult Education and Literacy U.S. Department of Education Office of Vocational and Adult Education Division of Adult Education and Literacy Mail Stop 7240, Room 4414 400 Maryland Avenue, S.W. Washington, D.C. 20202-7240 (202) 205-9872/9996	Publications
ERIC Clearinghouse on Adult, Career, and Vocational Education Ohio State University 1900 Kenny Road Columbus, OH 43210-1090 (614) 292-4353 or (800) 848-4815	Publications Materials Searches On-Line Services
National Center on Adult Literacy University of Pennsylvania 3910 Chestnut Street Philadelphia, PA 19104-6216 (215) 898-2100	Research Publications Materials
National Center for Research in Vocational Education University of California at Berkeley 2150 Shattuck Avenue, Suite 1250 Berkeley, CA 94704 (800) 762-4093	Training Searches On-Line Services Research Publications
National Clearinghouse on ESL Literacy Education (NCLE) 1118 22nd Street, NW Washington, DC 20037 (202) 429-9292	Materials Publications Searches

	Services Offered
National Institute for Literacy 800 Connecticut Ave, NW Suite 200 Washington, DC 20202-7560 (202) 632-1500	Research Publications
National Workforce Assistance Collaborative National Alliance of Business (NAB) 1201 New York Ave. NW, Suite 700 Washington, DC 20005 (202) 289-2910	Research Publications Searches
OTAN VESL/ Workplace Clearinghouse 5350 University Avenue San Diego, CA 92105-2296 (619) 265-3458	Materials
Training Technology Resource Center Employment and Training Administration U.S. Department of Labor, N6511 Washington, D.C. 20210 (800) 488-0901	On-Line Databases

Appendix F

NATIONAL NETWORK FOR CURRICULUM COORDINATION IN VOCATIONAL AND TECHNICAL EDUCATION

The following six centers offer a variety of curriculum related services including: library lending services, conducting searches, technical assistance and inservice training.

East Central Curriculum Coordination Center
Illinois Vocational Curriculum Center
Sangamon State University
Building F-2
Springfield, IL 62794-9243
(217) 786-6375

Minnesota, Wisconsin, Illinois, Michigan, Indiana, Ohio, Pennsylvania, West Virginia, Delaware, Maryland, District of Columbia

Midwest Curriculum Coordination Center
Oklahoma Department of Vocational and Technical Education
1500 West 7th Avenue
Stillwater, OK 74074-4364
(405) 743-5192

Iowa, Nebraska, Kansas, Missouri, Oklahoma, Louisiana, Texas, New Mexico, Arkansas

Northeast Curriculum Coordination Center
NJ State Department of Education
Division of Vocational Education
Crestway
Aberdeen, NJ
(908) 290-1900

Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, New York, Puerto Rico, Virgin Islands

Northwest Curriculum Coordination Center
St. Martin's College
Old Main Building, Room 478
Lacey, WA 98503
(206) 438-4456

Washingon, Oregon, Idaho, Montana, Wyoming, Utah, Colorado, North Dakota, South Dakota, Alaska

Western Curriculum Coordination Center
University of Hawaii at Manoa
College of Education
1776 University Avenue, WIST 216
Honolulu, HI 96822
(808) 956-7834

California, Hawaii, Nevada, Arizona, Guam, American Samoa, Republic of the Marshall Islands, Northern Marianas, Republic of Palau, Federated States of Micronesia

Southeast Curriculum Coordination Center
Mississippi State University
Research & Curriculum Unit
P.O. Drawer DX
Mississippi, MS 39762
(601) 325-2510

Kentucky, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi

NOTE: STATE LITERACY RESOURCE CENTERS ARE NO LONGER FUNDED WITH FEDERAL APPROPRIATIONS

Appendix G

Appendix H

NATIONAL ASSOCIATION OF INDUSTRY SPECIFIC TRAINING DIRECTORS

ALABAMA

Ed Castile, Director
AL Industrial Development Training
One Technology Court
Montgomery, AL 36116-3200
(205) 242-4158

Steve Zimmer
Calhoun Community College
P.O. Box 2216
Decatur, AL 35609

ALASKA

Kathy Brown, Grants Administrator
Dept. of Community & Regional Affairs
Rural Development Division
PO Box 112100
Juneau, AK 99811
(907) 465-4890

ARIZONA

Marilyn Truitt, Director
Industry Training Service
Educational Program Specialist
Arizona Dept. of Education
1535 W. Jefferson -Bin 39
Phoenix, AZ 85007
(602) 542-5393

Jacqueline R. Flood
Job Training Manager
Arizona Dept. of Commerce
3800 North Central Suite 1500
Phoenix, AZ 85012
(602) 280-1358

ARKANSAS

Richard L. Cochran, Deputy Director
Industry Training Program
Arkansas Industrial Dev. Commission
One Capitol Mall, Suite 2C-250
Little Rock, AK 72201
(501) 682-1246

CALIFORNIA

Gerald Geismar, Executive Director
Employment Training Panel
800 Capitol Mall -MIC 64
P.O. Box 826880
Sacramento, CA 94280-0001
(916) 327-5640

COLORADO

Bonnie Allison
Business Development Coordinator
Office of Business Development
Colorado Office of Economic Dev.
1625 Broadway, Suite 1710
Denver, CO 80202
(303) 892-3840

CONNECTICUT

Alice Carrier
Operations Support Unit
Connecticut Dept. of Labor
200 Folly Brook Blvd.
Wethersfield, CT 06109
(203) 566-4288

Janice Hasenjager
Program Manager
Office of Job Training & Skill Dev.
200 Folly Brook Blvd.
Wethersfield, CT 06109
(203) 566-2450

DELAWARE

Jan Abrams, Director
Education, Training & Recruitment
Delaware Development Office
99 Kings Hwy.
PO Box 1401
Dover, DE 19903
(302) 739-4271

FLORIDA

Judy Cullbreath, Director
Quick Response Program
Department of Commerce
107 Gaines Street, Suite 466
Tallahassee, FL 32399-2000
(904) 922-8645

GEORGIA

Jackie Rohosky, Asst. Commissioner
Economic Development Programs
Dept. of Tech. & Adult Ed.
Georgia Quick Start
1800 Century Place, Suite 300
Atlanta, GA 30345
(404) 679-1700

Ben Walton, Manager
Existing Industry Operations
Georgia Quick Start Program
1800 Century Place, Suite 300
Atlanta, GA 30345
(404) 679-1700

HAWAII

Patricia Dauterman
Program Coordinator
ASSET
Dept. of Labor & Industrial Relations
830 Punchbowl Street, Room 321
Honolulu, HI 96813
(808) 586-8864

IDAHO

Dick Winn, Director
Post-Secondary Short Term Training
State Division of Vocational Education
650 W. State Street
Boise, ID 83720
(208) 334-3216

ILLINOIS

Jerry Burger, Manager
Industrial Training Program
Dept. of Commerce & Community Affairs
620 E. Adams
Springfield, IL 62701
(217) 785-6004

Lori Clark, Manager
Office of Industrial Training
Dept. of Commerce & Community Affairs
100 West Randolph, Suite 3-300
Chicago, IL 60601
(312) 814-2809

Dennis Sienko
Chief Executive Officer
Prairie State 2000 Authority
100 W. Randolph, Suite 4-800
Chicago, IL 60601
(312) 814-2700

INDIANA

Kathy MacDonald
Director of Business & Industry
Ivy Tech College
One West 26th Street
Indianapolis, IN 46208
(317) 921-4950

IOWA

JoAnn S. Callison, Chief
Bureau of State Programs
Division of Workforce Development
Dept. of Economic Development
200 E. Grand Ave.
Des Moines, IA 50309
(515) 281-9017

Al Clausen, Section Supervisor
Business & Industry Training
Iowa Dept. of Economic Dev.
200 East Grand Avenue
Des Moines, IA 50309
(515)281-281-9003

KANSAS

Steve Jack, Manager
Workforce Training
Kansas Dept. of Commerce & Housing
700 S.W. Harrison, Suite 1300
Topeka, KA 66603-3712
(913) 296-3483

KENTUCKY

Kenneth Carroll, Executive Director
Bluegrass State Skills Corp.
500 Mero St.,
Capital Plaza Tower, 24th Floor
Frankfort, KY 40601
(502) 564-2021

Clarence Johns, Coordinator
Business & Industry Services
U KY Community College System
111 Breckenridge Hall
Lexington, KY 40506-0056
(606) 257-5653

Jeanette Dawney, Commissioner
Kentucky Dept. of Tech. Education
Workforce Dev. Cabinet/ KY Tech
500 Mero St., 20th Fl.
Frankfort, KY 40601
(502) 564-2326

LOUISIANA

Felix Goodrum, Jr.
Dept. of Economic Development
P.O. Box 94185
Baton Rouge, LA 70804-9185
(504) 342-5893

Gerald Saucier, Program Manager
Quickstart Industrial Training Program
Louisiana Dept. of Education
Bureau of Post-Secondary Voc. Ed.
P.O. Box 94064
Baton Rouge, LA 70804
(504) 342-3343

MAINE

Mary Lou Dyer
Bureau of Employment & Trng.
Maine Department of Labor
State House Station #55
Augusta, ME 04330-0055
(207) 287-3377

MARYLAND

Joe DeSantis, Specialist
Post-Secondary Adult Ed.
Maryland Dept. of Education
200 W. Baltimore St.
Baltimore, MD 21201
(410) 333-2566

Alan B. Kutz, Director
Office of Business Assistance
Dept. of Economic & Employment Dev.
217 E. Redwood St., 10th Floor
Baltimore, MD 21202
(410) 333-6975

Paige Rusell Bethke
Industrial Development Officer
Dept. of Economic Dev. (OBA)
2660 Riva Road, Suite 200
Annapolis, MD 21601
(410) 974-7385

MASSACHUSETTS

Erik P. Butler, Executive Drector
Bay State Skills Corporation
101 Summer St.
Boston, MA 02110
(617) 292-5100

Suzanne Teegarden, Executve Director
Mass. Industrial Svcs. Program
100 Cambridge St., Rm. 1302
Boston, MA 02202
(617) 727-8158

MICHIGAN

Deryl Beasley, Program Manager
Strategic Fund/Capitol Resources
Michigan Dept. of Commerce
Law Bldg. 3rd Fl., P.O. Box 30234
Lansing, MI 48909
(517) 335-3325

MINNESOTA

Roger Hughes, Executive Director
Minn. Job Skills Partnership
Dept. of Trade & Economic Dev.
500 Metro Square Bldg.
121 7th Place East
St. Paul, MN 55101-2146
(612) 296-0388

William Weiser, Assoc. Vice Chancellor
System Operations/Custom Services
Minn. Technical College System
350 Capitol Sq. Bldg./550 Cedar
St. Paul, MN 55101
(612) 296-0668

MISSISSIPPI

Nancy Alley, Director
Industrial Svcs. Div.
Miss. Department of Education
P.O. Box 771
Jackson, MS 39205
(601) 359-3077

MISSOURI

Irvin Whitehead, Acting Director
Div. of Job Development & Trng.
Dept. of Economic Dev.
221 Metro Drive
Jefferson City, MO 65101
(314) 751-7796

Dennis Harden, Supervisor
Industrial Trng.
Dept. of Elem. & Second. Ed.
P.O. Box 480
Jefferson City, MO 65102
(314)751-4212

MONTANA

T. Gary Curtis, Acting Administrator
Labor & Industry
Montana Labor Dept.
P.O. Box 1728
Helena, MT 59624
(406) 444-2648

NEBRASKA

Pat Prieb, Job Training Liason
Dept. of Economic Dev.
P.O. Box 94863
Lincoln, NE 68509-4863
(402) 471-3780

NEVADA

Barbara Weinberg, Director
Quick Start Job Training Program
State Job Training Office
Capitol Complex
Carson City, NV 89710
(702) 687-4310

NEW HAMPSHIRE

Maureen Johnson, Director
Adult Services
Job Training Partnership Office
New Hampshire Job Training Council
64 Old Suncook Rd.
Concord, NH 03301
(603) 228-9500

NEW JERSEY

Leo Turetsky, Chief
Office of Customized Training
New Jersey Dept. of Labor
600 Washington Ave.
Carlstadt, NJ 07072
(201) 939-5972

NEW MEXICO

Carlos Gonzales, State Supervisor
Industrial Dev. Training Program
Dept. of Education Vocational Div.
Santa Fe, NM 87501
(505) 827-6676

NEW YORK

George Palmer
Bureau of Economic & Workforce Dev.
New York State Education Dept.
Cultural Education Center, Room 5D45
Albany, NY 12230
(518) 474-4809

Peter Mannella, Director
Office of Skills Training Program
NY State Dept. of Economic Dev.
One Commerce Plaza
Albany, NY 12245
(518) 474-0672

David Van Nortwick, Director
Community College Adm. Service
Office of Community Colleges
State University of New York
University Plaza
Albany, NY 12246
(518) 443-5129

NORTH CAROLINA

Joe Sturdivant, Director
Business & Industry Services
Dept. of Community Colleges
200 W. Jones St.
Raleigh, NC 27603-1337
(919) 733-7051

NORTH DAKOTA

Don Roloff, Supervisor
State Board for Vocational Ed.
State Capitol Building
600 E. Blvd. Ave..
Bismarck, ND 58505-0160
(701) 224-2259

OHIO

Kathleen Faust, Director
Enterprise Ohio
Ohio Board of Regents
3600 State Office Tower
30 East Broad St.
Columbus, OH 43266-0417
(614) 752-9487

Linda O'Connor, Manager
Office of Industrial Training
Ohio Dept. of Development
Economic Business Dev. Div.
77 S. High St., 28th Fl.
Columbus, OH 42366-0413
(614) 466-4155

OKLAHOMA

Mark Taylor, Director
Technical Services
Meridian Technology Center
1312 South Sangre Road
Stillwater, OK 74074-1899
(405) 377-3333 Ext. 216

Larry Keen
Industry Training & Development
State Department of Vo-Tech Ed.
1500 West 7th Avenue
Stillwater, OK 74074-4364
(405) 743-5559

OREGON

Robert Baugh, Manager
Workforce Dev. Sec.
Oregon Economic Dev. Dept.
775 Summer St., NE
Salem, OR 97310
(503) 378-2285

PENNSYVANIA

Peter Baumhardt
Customized Job Training Coordinator
Bureau of Vocational Tech. Ed.
333 Market St., 6th Fl.
Harrisburg, PA 17126-0333
(717) 783-8506

RHODE ISLAND

Lee Arnold, Deputy Director
Workforce 2000
101 Friendship St.
Providence, RI 02903-3740
(401) 277-6700

SOUTH CAROLINA

Robert Taylor, Associate Director
Economic Dev. Div.
Board for Tech. & Comp. Ed.
111 Executive Center Dr.
Columbia, SC 29210
(803) 737-9333

Ed Hornback, Director
Training & Development
Southeast Manufacturing Tech Center
Swearingen Engineering Center
University of South Carolina
Columbia, SC 29208
(803) 777-7348

SOUTH DAKOTA

Gene Dickson, State Administrator
Adult Basic Education
Vocational Education Division
South Dakota Dept. of Ed.
700 Governors Dr.
Pierre, SD 57501-2291
(605) 773-4716

James Walsh, Specialist
Industrial Training
South Dakota Dept. of Labor
700 Governors Dr.
Pierre, SD 57501-2291
(605) 773-5017

TENNESSEE

Robert D. Parson, Director
Industrial Training Service
Dept. of Economic & Comm. Dev.
Volunteer Plaza, Suite 660
500 James Robertson Pkwy.
Nashville, TN 37243-0406
(615) 741-1746

TEXAS

Ray Pericola, Supervisor
Workforce Dev. Incentive Program
Texas Department of Commerce
P.O. Box 12728, Capitol Station
Austin, TX 78711
(512) 472-5059

Carolyn Smith, Specialist
Workforce Dev. Incentive Program
Texas Department of Commerce
P.O. Box 12728, Capitol Station
Austin, TX 78711
(512) 472-5059

UTAH

Dale Stephens, State Specialist
Custom FIT Training Program
Utah Office of Education
250 East 500 South
Salt Lake City, UT 84111
(801) 538-7867

VERMONT

Philip Fagen, Training Liaison
Vermont Dept. of Econ. Dev.
Pavillion Office Bldg.
Montpelier, VT 05602
(802) 828-3221

VIRGINIA

Preston Wilhelm, Director
Workforce Services Prog.
Dept. of Economic Dev.
901 E. Byrd St.
P.O. Box 798
Richmond, VA 23206-0798
(804) 371-8120

WASHINGTON

Michael Flor
Policy & Planning Div.
Workforce Trn./Ed. Coord. Board
P.O. Box 43105
Olympia, WA 98504-3105
(206) 586-8680

WEST VERGINIA

Mark R. Julian, Director
Governor's Guaranteed Workforce Pro.
West Virginia Dev. Office
Capitol Complex, Building 6, Rm 517
Charleston, WV 25305
(304) 558-3083

David H. Lieving, Coordinator
Services to Business & Industry
(GGWFP)
West Virginia Dept. of Education
Division of Tech. & Adult Ed. Services
Capitol Complex, Building 6, Rm 517
Charleston, WV 25305
(304) 558-3083

WISCONSIN

Jimmy Wilson, Program Specialist
Office of Department Finance
Department of Development
P.O. Box 7970
Madison, WI 53707
(608) 266-2766

Salvatore Notaro, Section Chief
Economic Development
Board of Voc., Tech., & Adult Ed.
310 Price Place
P.O. Box 7874
Madison, WI 53707
(608) 266-7697

Appendix I

BEST COPY AVAILABLE

SKILL STANDARDS PROJECTS

The following agencies have received funding from the Department of Education or the Department of Labor to identify the technical and basic skills standards for their given industry.

Industry	Grantee
Supermarket (entry level)	Grocers Research & Education Foundation 1825 Samuel Morse Drive Reston, VA 22090 (703) 437-5300 Project Director: June Williams
Advanced Manufacturing	Foundation for Industrial Modernization 1331 Pennsylvania Ave., N.W. Suite 1410 - North Washington, D.C. 20004 (202) 662-8960 Project Director: Leo Reddy
Agriscience/Biotechnology	National FFA Foundation P.O. Box 15160 Alexandria, VA 22306 (703) 360-3600 Project Director: Bernard Staller
Welding (entry-level)	American Welding Society 550 N.W. LeJume Road Miami, FL 33126 (305) 443-9353 Project Director: Dr. Nelson C. Wall
Chemical Process Industries Technical Workers	American Chemical Society 1155 Sixteenth Street Washington, D.C. 20016 (202) 872-8734 Project Director: Kenneth M. Chapman

Industry	Grantee
Human Services (Direct care)	Human Services Research Institute 2335 Massachusetts Ave. Cambridge, MA 02140 (617) 876-0420 Project Director: Dr. Virginia Mulkern
Photonics Technicians	Center for Occupational Research & Development 601 Lake Air Drive Waco, TX 76710 (817) 772-8756 Project Director: Darrell Hull
Hazardous Material Management Technician	Center for Occupational Research & Development P.O. Box 21689 Waco, TX 76702-1689 (817) 772-8756 Project Director: James Johnson
Heavy Highway/Utility Construction & Environmental Remediation and Demolition	Laborers - AGC Education & Training Fund 37 Deerfield Road P.O. Box 37 Pomfret Center, CT 06259 (203) 974-0800 Project Director: John Tippie
Computer Aided Drafting	Foundation for Industrial Modernization (FIM) 1331 Pennsylvania Ave., N.W. Suite 1410, North Tower Washington, DC 20004-1703 Project Director: Jane Beardsworth
Air Conditioning, Refrigeration and Power (residential & light commercial)	Southern Association of Colleges & Schools V-TECS 1866 Southern Lane Decatur, GA 30033-4097 (800) 248-7701 Project Director: Victor Harville

Industry	Grantee
Automotive, Autobody, Truck and Technicians	National Automotive Technicians Education Foundation 13505 Dulles Technology Drive Herndon, VA 22071 (703) 713-0100 Project Director: Pat Lundquist
Bioscience (entry & mid-level Laboratory)	Education Development Center 55 Chapel Street Newton, MA 02160 (617) 969-7100 Project Director: Dr. Judith Leff
Electronic Industries Technicians	Electronic Industries Foundation 919 18th Street Washington, DC 20006 (202) 955-5814 Project Director: Irwin Kaplan
Printing (Press Cluster)	The Graphics Arts Technical Foundation 4615 Forbes Ave. Pittsburgh, PA 15213-3796 (412) 621-6941 Project Director: John Burgess
Health Science & Technology (Medical office assistant, Radiology Technologist, Home Health, Medical Records Technician, Medical Secretary, Surgical Technologist) Technologist)	Far West Labs for Educational Research and Development 730 Harrison Street San Francisco, CA 94107-1242 (415) 241-2725 Project Director: Sri Ananda
Industrial Laundry	Institute of Industrial Launderers 1730 M. Street NW Suite 610 Washington, DC 20036 (202) 296-6744 Project Director: Goeffrey Northey

Industry	Grantee
Hospitality & Tourism	Council on Hotel, Restaurant & Institutional Education 1200 17th Street NW Washington, DC 20036-3097 (202) 331-5990 Project Director: Doug Adair
Metalworking	National Tool & Machining Association 9300 Livingston Road Ft. Washington, MD 20744 (301) 248-6200 Project Director: William Ruxton
Electronics (Assembler, Production Associate, Operator, Administrative Services Support, and Pre/Post Sales)	American Electronics Association 5201 Great American Parkway Santa Clara, CA 95056 (408) 987-4267 Project Director: Cheryl Fields Tyler
Electrical Construction	National Electrical Contractors 3 Bethesda Metro Ctr., Suite 1100 Bethesda, MD 20814 (301) 657-3110 Project Director: Charles Kelly
Retail Trade	National Retail Federation 701 Pennsylvania Ave. NW, Suite 710 Washington, DC 20004 (202) 783-7971 Project Director: Robert Hall